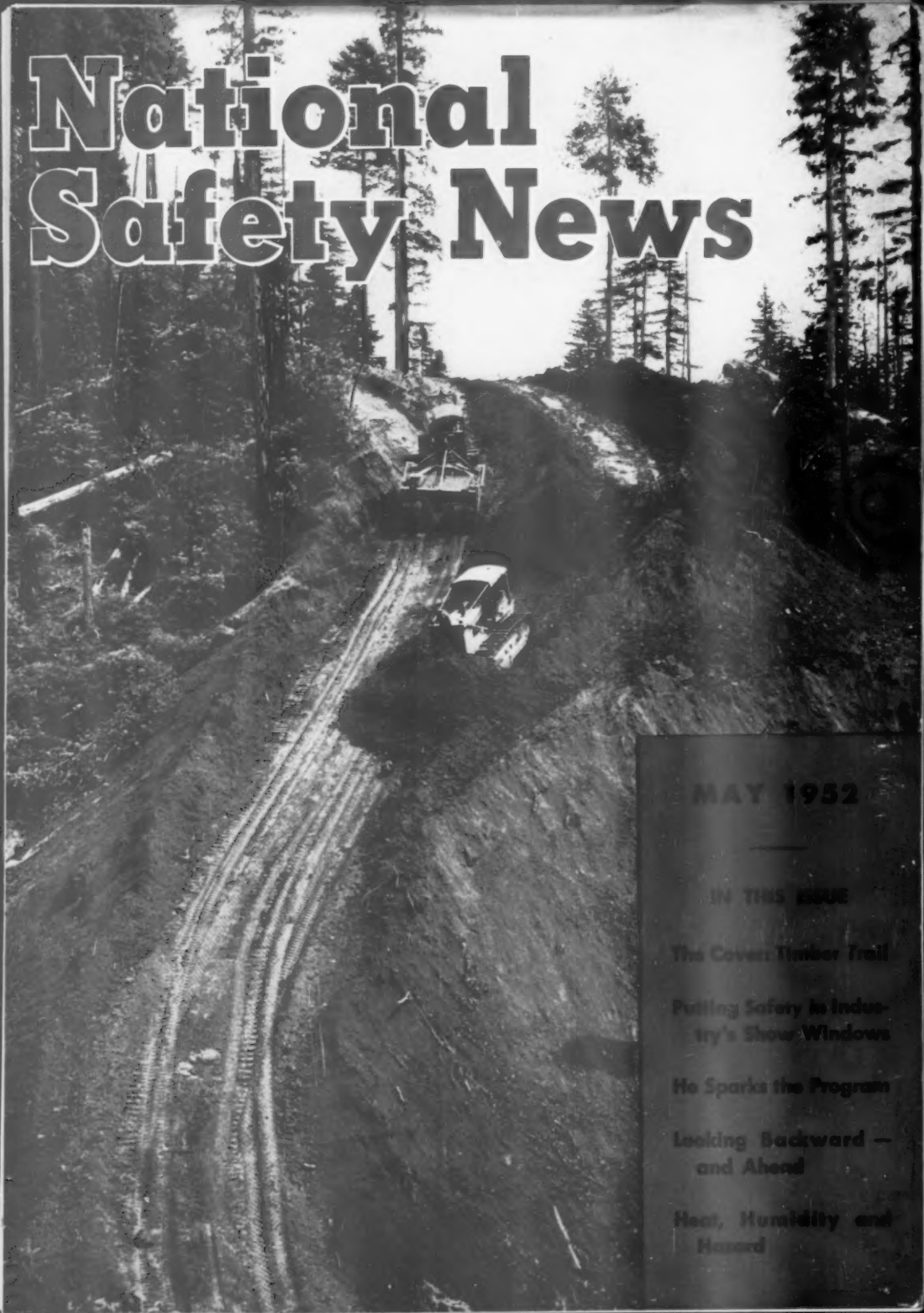


# National Safety News



**MAY 1952**

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The Cover: Timber Trail

Putting Safety in Industry's Show Windows

He Sparks the Program

Looking Backward —  
and Ahead

Heat, Humidity and  
Hazard

# M.S.A. RESPIRATORS

For greater comfort  
maximum protection . . .  
when there's

*Trouble in The AIR!*

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In areas where dusts are not significantly more toxic than lead, this streamlined respirator offers the maximum in protection and wearing comfort. Its light weight (2½ oz.), low breathing resistance, compact design and effective filtering action contribute to greater worker health, lower accident frequency and the increased production of the individual. U. S. Bureau of Mines approved. Get the facts behind these features now! Write for our descriptive bulletin.



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See how easy it is to recharge! Just unscrew the head, put in five pounds of dry chemical, screw the head back on and it's ready to take on air pressure from any plant or service station air pump.

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# National SAFETY NEWS

Published monthly by  
National Safety Council

MAY 1952

Vol. 65, No. 5

THE COVER: Preparing to log off a new section of the Hammond Lumber Company's timber holdings near Trinidad, Calif. Crews with modern earth-moving equipment are pioneering access trail so equipment can be brought up to where road proper can be built.

Photo courtesy International Harvester Company

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30,600 copies of this issue were printed

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National Safety News is published monthly by National Safety Council. Copyright 1952 by National Safety Council. Printed in U.S.A. Entered as second class matter June 21, 1921, at the Post Office at Chicago, Illinois, under the act of March 3, 1879. Subscription rate: To members, \$5.50 per year, single copies 55 cents; to non-members, \$7.50 per year, single copies, 75 cents. Quantity prices for yearly subscriptions and single issue on request. Member Audit Bureau of Circulation. Indexed in Industrial Arts Index. Statements and opinions advanced in signed articles are personal expressions of the authors, not necessarily those of the National Safety Council.

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**SUREFOOTED**  
as a fly

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BY  
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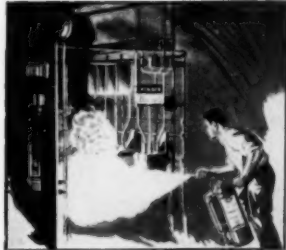
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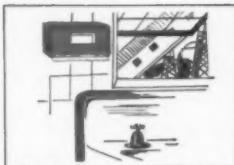
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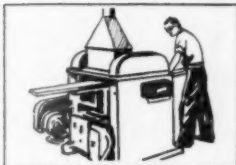
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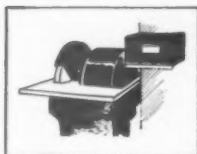


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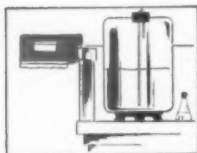


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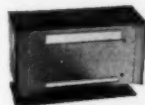
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ants, flies,  
chiggers, etc.

for treatment of  
ivy, oak and sumac  
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And now PELLENT is packed in its most economical, most efficient form for you—in the MSco Unit System. Each MSco Unit contains six non-leaking tubes with safety spear caps for easy application, no spillage, no waste... always ready when and where needed.



Make sure now that all your field first aid kits are equipped with MSco Units of PELLENT... for greater employee safety, comfort, and efficiency.



**OUT IN THE OIL FIELDS**, along the pipe lines, wherever men must work in mosquito-infested country, PELLENT is effective longer, gives better protection against efficiency-robbing insects.



**CONSTRUCTION CREWS**, lumbermen, river barge workers, others in field operations find it easier, safer working when protected by PELLENT and MSco Poison Ivy Ointment.

MSco Poison Ivy Ointment, the first of its kind in the Unit System, proved in the field with over seven years of case history... used as a preventative or a cure

Give your field workers the protection that only a product with proved field experience can offer.

Here are excerpts from public utility field reports in the midwest:

"We use the ointment as a preventative... in 1950 we did not have a lost-time accident due to poison ivy and thus far this year we have had just one."

"It is proving effective against poison ivy, poison oak and poison sumac in approximately 75% of cases reported."

Ask your distributor, or write us direct, for complete details on MSco Unit packs of Poison Ivy Ointment, No. A-17 and PELLENT, No. 204A, for protecting the men who perform your field operations.



**UTILITY WORKERS**, railway maintenance men, highway crews and other workers in timber and brush country do their jobs faster, better, more comfortably when using MSco safeguards—PELLENT and Poison Ivy Ointment.



## Medical Supply Company

ROCKFORD, ILLINOIS



# Step Out in Comfort

## Introducing



**No. 623**

Sizes 6-13;  
Widths A-E

the  
**Iron Age**  
**DIRECTOR**

with

**VulCork Neoprene Sole**

*The Director* is a handsome new addition to the Iron Age line. It is a military style safety oxford, expertly lasted to retain its shape and having a Winguard steel toe box concealed by a full leather lining. The soft, pliable brown leather uppers are finished in rich pebble grain. An absorbent inner cushion of Armstrong cork filler keeps the insole smooth and adds bounce to the step.

*The Director* is equally at home on carpeting or grease soaked concrete. It fits right into office surroundings, yet the oil resistant VulCork Neoprene sole makes this shoe most serviceable for shop wear.

Let the Iron Age representative in your area demonstrate the many extra values we have built into *The Director*. Write us and he will see you.

# Iron Age



# Style and Safety



**H**ERE ARE THREE of the many eye-appealing Iron Age steel toe safety shoes that bring comfort, style and safety to men in industry. Their better value is apparent at a glance. These are safety shoes that just *ask to be worn!* All are in stock and ready for prompt delivery. Alert safety directors have found no better way to boost worker coverage than by selecting and stocking from the complete Iron Age line. Write for our new descriptive color brochure.

## Iron Age DIVISION

H. CHILDS & CO., INC. • PITTSBURGH 22, PA.



*The Safety Shoe for Industrial America*



**No. 614**  
**THE MOC WEAVE**

Sizes 5-12, Widths A-E

Style conscious men in industry proudly wear this moccasin oxford that has the flexibility of a woven vamp. Both vamp and lining are perforated for air-conditioned comfort. Has inner cushion of Armstrong cork filler, a Winguard steel toe box plus famous, durable "Nacilla" soles.

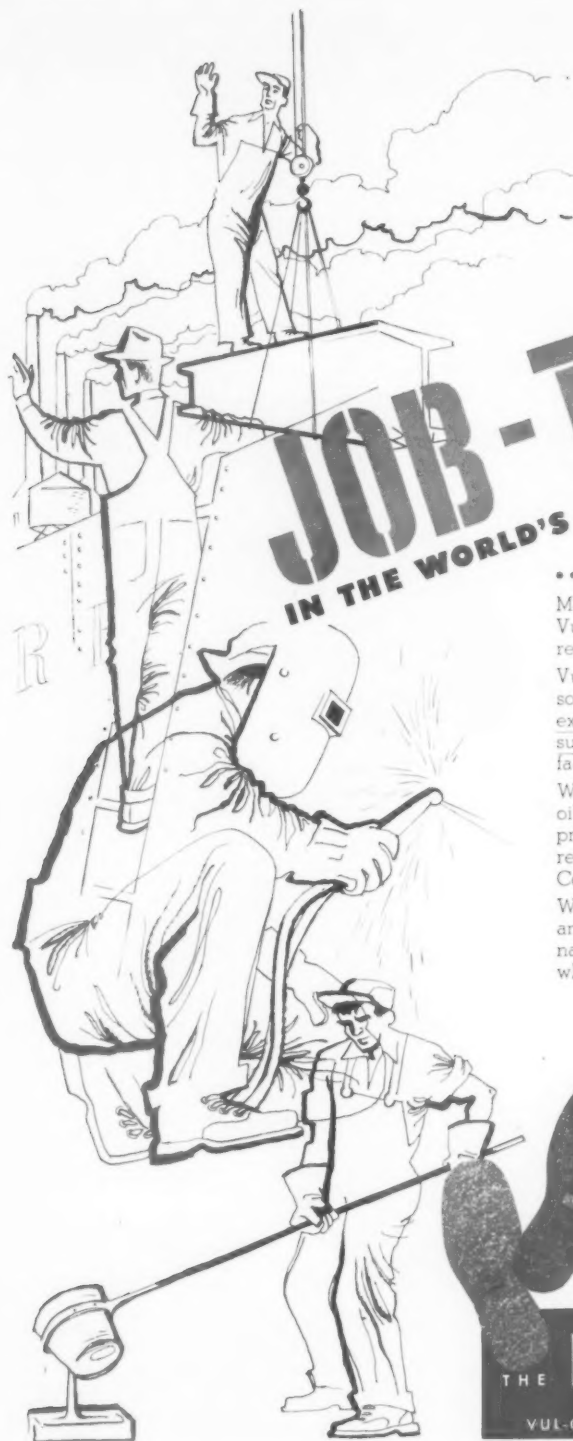


**No. 612**  
**THE VENT WEAVE**

Sizes 5-12, Widths A-E

These stylish ventilated safety oxfords in rich burgundy elk are tops in comfort for warm weather. Armstrong cork filler floats the foot on thousands of air filled cells of cork. Custom hand lacing lends a distinctive touch. "Leatherplus" outsoles and the best grade rubber heels give extra long wear.

## SAFETY SHOES



# JOB-TESTED

IN THE WORLD'S TOUGHEST LABORATORY

## ... on the feet of America's workers

Make your own tests. See why industry turns to Vul-Cork and Vul-Cork Neoprene soles to help reduce accidents and keep workers comfortable. Vul-Cork does everything you ask of a safety shoe sole, in nearly all kinds of jobs. It is also proving exceptionally durable and comfortable on abrasive surfaces which wear out ordinary soles — surfaces such as cinders, sand and cement floors.

When the shoes your workers wear must also resist oil, grease, acids and heat, then Vul-Cork Neoprene is your answer. You may not expect an oil-resistant sole to be light and flexible too, but Vul-Cork Neoprene *is*.

Write and tell us how many sample soles you want, and the sizes needed. We will also send you the names of the top-quality safety shoe manufacturers who use Vul-Cork and Vul-Cork Neoprene soles.

Vul-Cork Soles won't leave marks on floors when your workers arrive home. Their clean, firm edges give a dress-shoe appearance that workers appreciate.

**Vul-Cork**  
AND VUL-CORK NEOPRENE

THE **Cambridge** RUBBER COMPANY  
VUL-CORK DIVISION, TANEYTOWN, MARYLAND

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★ **ALFCO ANTI-STATIK**  
**HORN** Device grounds  
static electricity,  
insures safety.



## ALL ALFCO CARBON DIOXIDE FIRE EX- TINGUISHERS WITH HOSE CONNECTIONS HAVE ALFCO ANTI-STATIK HORNS

All commercial Alfco Carbon Dioxide Extinguishers having hose connections are equipped with an exclusive Alfco Anti-Statik Discharge Horn which grounds static electricity, eliminating the possibility of shock to the operator from a static charge generated by rapid release of gas. Smaller size units with shorter swivel type horns do not require this feature. There is a capacity size model to meet your requirements from 20 lbs. down to 2½ lbs. Wheeled Engines also available in 50, 75, and 100 lb. sizes.



Sectional view of Alfco  
Anti-Statik Horn



\* On All ALFCO Carbon Dioxide Hand Portable FIRE EXTINGUISHERS  
and WHEELED ENGINES EQUIPPED WITH HOSE CONNECTIONS

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## HY-TEST SAFETY SHOES NOW A SEPARATE DIVISION OF INTERNATIONAL SHOE COMPANY

The expanding scope of the Hy-Test Safety Shoe operation now justifies a complete and specialized organization of its own.

From now on the Hy-Test representatives shown here will represent Hy-Test exclusively, concentrating on helping customers provide the proper safety shoes for workers.

Hy-Test customers are thus assured the best possible service.

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# NATIONAL SAFETY NEWS

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MAY 1952

## THE KEY WORD

AMERICA'S national safety movement was organized at the suggestion of the First Cooperative Safety Congress, held in Milwaukee in 1912. Note that word, "cooperative." The pioneers of our movement thought it was a key word—and I think it still is.

I am proud of the National Safety Council. I am proud to be associated with the organization that has carried on the tradition of the First Congress right through to the present planning for the Fortieth National Safety Congress and Exposition.

But I do not think that the National Safety Council is the safety movement. I know how vital a role in the safety efforts of this country is carried by scores of other organizations.

Business firms and professional societies, service organizations and farm groups, insurance companies and their associations, humanitarian and educational bodies, labor unions and trade associations—these are only a few of the types of organizations which, whether they are affiliated with the National Safety Council or not, are slugging away day in and day out in the fight against accidents.

Individuals in every walk of life have made their contributions to the movement, both as individuals and as leaders of organized groups. Government officials—from the President down to the police patrolmen—have been faithful allies. Business

leaders by the hundreds have given of their time and means. Classroom teachers and research scientists, foremen and employees, parents and children, radio performers and newspapermen, truck drivers and crossing watchmen—all these have produced accident fighters by the tens of thousands.

Safety is a tremendous campaign, calling for great skill in organization, in education, in planning, in development enthusiasm . . . in a word, in learning what needs to be done, in persuading people to do it, and in helping to guide their efforts when they try to do it.

There is room in the safety movement for every talent, power and ability—whether these be possessed by an individual or an organization.

There is credit to spare for every single contribution to the life-saving effort we are all working for. There need be no competition, no jealousy, and no reluctance to share responsibility.

I have pledged the National Safety Council to a course of action based on cooperation with all who want to prevent accidents. I want now to renew and re-emphasize that pledge.

In the year in which we celebrate the 40th anniversary of the holding of the First Cooperative Safety Congress, we must rededicate ourselves to the support of the principle which guided the organization of our national movement.

*Ned H. Dearborn*

# Putting Safety in Industry's Show Windows

By E. S. BOWERFIND

**It's not enough to do a good job of accident prevention. We must tell the public about it**

**I**N carrying out his responsibilities a public relations man works with every department. His relationship with the safety department especially should be close, based on an almost day-to-day contact and a thorough knowledge of what the department is doing and the results attained.

This is essential, because in spite of the great improvement which

has been made in industrial safety, there is still lurking in the back of some people's minds the belief that a job in industry is too often surrounded by hazards.

This belief will continue unless safety and public relations become fast allies and tell the public frequently and interestingly about the progress industry has made in accident reduction.

There are certain practical aspects to this. Industry needs the cream, not the skimmed milk, of the potential labor pool. If there is a prevalent idea that industrial jobs are a one-way ticket to accident, many young men will look elsewhere for jobs.

Should industrial employment seem unnecessarily hazardous, you may be sure that legislation will result to cure non-existent dangers.

Yes, there are many reasons why the positive side of safety should

Safety displays at a plant open house, an exhibition or any other spot where people gather keeps the public informed of the company's safety program.



E. S. BOWERFIND is Director of Public Relations, Republic Steel Corp., Cleveland, Ohio. This article was presented originally before the 39th National Safety Congress.





**TO REPUBLIC'S 1950 SAFETY LEADERS**

The combined safety efforts of the managers, superintendents, foremen and workmen resulted in the best accident severity rate for Southern Coal Mines, Union Drown Massillon, Northern Ore Mines, and Southern District.

**SOUTHERN COAL MINES**  
 J. H. Williams, Manager  
 The combined safety efforts of the managers, superintendents, foremen and workmen resulted in the best accident severity rate for Southern Coal Mines, Union Drown Massillon, Northern Ore Mines, and Southern District.

**SOUTHERN DISTRICT**  
 E. J. Jones, Manager  
 The combined safety efforts of the managers, superintendents, foremen and workmen resulted in the best accident severity rate for Southern Coal Mines, Union Drown Massillon, Northern Ore Mines, and Southern District.

**UNION DROWN MASSILLON**  
 J. H. Williams, Manager  
 The combined safety efforts of the managers, superintendents, foremen and workmen resulted in the best accident severity rate for Southern Coal Mines, Union Drown Massillon, Northern Ore Mines, and Southern District.

**NORTHERN ORE MINES**  
 E. J. Jones, Manager  
 The combined safety efforts of the managers, superintendents, foremen and workmen resulted in the best accident severity rate for Southern Coal Mines, Union Drown Massillon, Northern Ore Mines, and Southern District.

**Eight Republic Plants and a Railroad Operate In 1950 Without a Lost Time Accident**

In addition to the plants which won major trophies, the Republic plants listed at right are to be congratulated for having operated the entire year of 1950 without a disabling accident.

**L. C. & M. SETS 4-YEAR SAFETY RECORD**

The more than 40 years old L. C. & M. (Lumber Company and Massillon Railroad) recently has 40 years of operation without a lost time accident. This is a commendable record which the company and its employees are proud of. The company is a member of the National Safety Council and has been awarded the highest honor of the National Safety Council, the Gold Medal, for its safety record.

Recognition of safety achievements of various units in the company publication, "Republic Reports," stimulates local pride and community good will.

get a story. City editors are noted for not accepting alibis. If you refuse to give him information he will get it from other sources which he considers reliable. It may be the fire or police department, or hospitals, or workmen in the plant. The reporter will do his job with or without your help. If you force him to seek other sources of information, don't complain if the story is inaccurate and misleading. He has done his best and the inaccuracies are probably the result of your clamming up on him.

Then some people have the naive belief that an accident can be hidden. Not a chance if it is serious enough to rate a story. The injured man is taken to the hospital. There it becomes a mat-

ter of record. Frequently both police and fire departments are also involved.

So a part of the story, at least, is public property and the company might better go all the way and make complete facts available. The facts may not be pleasant but they're better than a hash of theory, rumors and half knowledge.

As a matter of fact, we do not hesitate to notify the papers of an accident which could be of news interest. There have been times when our call was the first word of the accident which the paper had.

In one community the local paper had the idea that our plant was a pretty dangerous place to work—almost a ticket to the hos-

pital. This conception was changed by calling the city editor every time we had an accident.

It suddenly began to dawn on him that accidents came only once in a rare while and not every other day as he had thought. Our safety reputation with that newspaper went way up as a result and that can't help but have its effect on our employees and the community.

Yes, the safety and public relations departments must work together continually. The safety department is a source of news. The public relations department can be helpful in circulating that news. It's not enough to do a good job. We must tell people we are doing it.

Many media can be effectively used to further the safety program. The plant publication, for instance. Every editor uses safety material but how does he use it. Does he merely report in a matter-of-fact way the results of safety work or some newsworthy safety story? Or does he not only cover interestingly the obvious safety news but goes a step further and creates safety features?

Recently the editor of *Republic Reports*, our publication, working with Bob Ferguson, our assistant director of industrial relations, developed a three-page photographic story based on a safety superintendent's day. The story started with the safety superintendent leaving the house in the morning and ended with his return after work. In between were pictures showing the wide variety of activities which took up his day.

I felt sorry for the man and was tired out just reading about his normal day's work. It was an interesting story, an impressive story, and brought into high relief the many facets of a good safety job and the responsibilities which a good safety man must accept and how a good safety job is done.

Your employee publication is a straight-line channel of commu-

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# CROSS COUNTRY

... with Charles F. Alexander

WINNIPEG and Duluth are not ideal places for midwinter visits—too darn cold. But I have many good friends in both cities and the chance to speak before the Western Retail Lumberman's Association in Winnipeg and the Industrial Safety Conference in Duluth—the first, a group of small businesses just starting out in safety, and the second, a wonderful example of a community-wide safety meeting attended by over a thousand people—were opportunities I would not miss if they were at opposite poles. The weather was not so bad, though—they were having a mild spell, just 10 or so below zero.

Winnipeg is a lot like Chicago. It's a railroad, grain, and meat packing center. And like the Chicago of 50 years ago, it has a boomtown atmosphere. It's a city that isn't done growing. The discovery and development of oil and mineral deposits further west since the war has accelerated its growth tremendously. You can "feel" this growth and expansion as well as see it. Canadian businessmen are more confident and optimistic than their American counterparts have been since the post World War I period. The only place in the States where you meet a similar attitude in businessmen is in Houston, another boomtown.

The industrial boom in Canada, of course, has created many problems in industrial relations. Wage scales are going up—rapidly approaching the American. There is a shortage of skilled workers. And labor is pressing its advantage through stronger organizations. Western Canadian businessmen increasingly are aware of the importance of good labor relations in their programs of greater pro-

duction to meet ever-increasing markets. From a safety man's point of view, conditions in Western Canada couldn't be better—management, by and large, is ready for safety. The Western Retail Lumberman's Association, I think, is a good case in point.

Made up of small and medium-sized lumber yards stretching all the way from Winnipeg to Vancouver, it is one of the largest and oldest (organized in 1890) associations of its kind on the Continent. Until quite recently, however, the association—like most small businesses—did little in the field of

accident prevention. This 1952 convention, in fact, marked the first occasion on which a safety session was held.

But under the stimulation of its officers, especially Brett Sine, president, and Hector Craig, secretary-manager, safety is being developed into an integral part of the association's work.

The safety session, like the whole convention, was beautifully staged and run. It received a great deal of publicity in both the newspapers and lumber trade journals. Because it was the first session in the morning, a novel publicity stunt was employed to bring in the delegates. It was announced in the program that the safety session would start with a "money balloon barrage." Balloons containing five dollar bills would be released.

The stunt was a success. At least we had an overflow crowd. There was a mad scramble when the balloons were released but, luckily, no major casualties. I scrambled too, but not hard enough or fast enough to get one of the loaded balloons.

The accident prevention picture in Canada is quite different—and in some ways more difficult to tackle—than in this country. Proportionately, there is a much greater number of small businesses in Canada. And as the professional safety man knows, the problem of introducing safety to the small operator is quite complex. In addition, compensation insurance rates are set by the Provincial State Compensation Boards, which are the insurance carriers. In most provinces the premium rate for an individual operator is set according to the accident experience of

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EDITOR'S NOTE: One of the most traveled men at National Safety Council headquarters is Charles F. Alexander, manager of the Industrial Department. Speaking engagements and meetings keep him on the road a lot, take him into plants in many industries and give him frequent opportunities to talk safety with workers, foremen, safety men, and representatives of top management. On these trips Charley has unusual opportunities to observe safety in action, so we're going to give him space every so often to report on his travels.



## He Sparks the Program

From signs and bulletin boards, this amiable cartoon character extends cheerful greetings and timely reminders



Creators of "Safety Sid" check first drawings of a character who is all that is good and positive in safety promotion. Joe Graziano, left, gets a few suggestions from Harvey Johnson who worked out a series of posters, murals, rule books and bulletins under the head: "Safety Sid says."

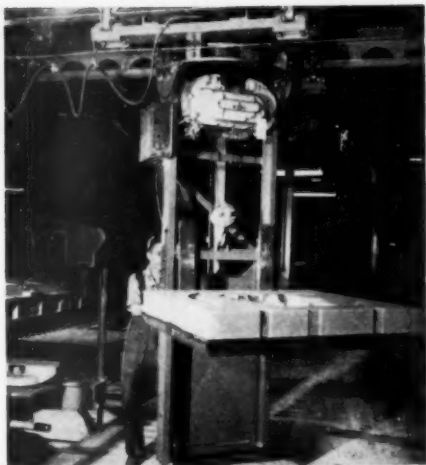
**W**HEN MEN come on shift at the Magnesium Foundry of the Ford Motor Company's Aircraft Engine Division in Chicago the first person to greet them is "Safety Sid, the Foundry Kid." From either side of the underground entrance to the plant, Sid passes along this greeting:

"Good morning! Wear your goggles and safety shoes and have a good evening."

Safety Sid is displayed prominently in other foundry locations. All posters are changed regularly and employees now watch for the new posters to find out what Sid has on his mind for the month. Every attempt is made to influence



**ABOVE:** Fixture for rolling over baked cores showing safety pins for locking mold in fixed position preventing accidental tilting. Note handles for preventing finger injuries.

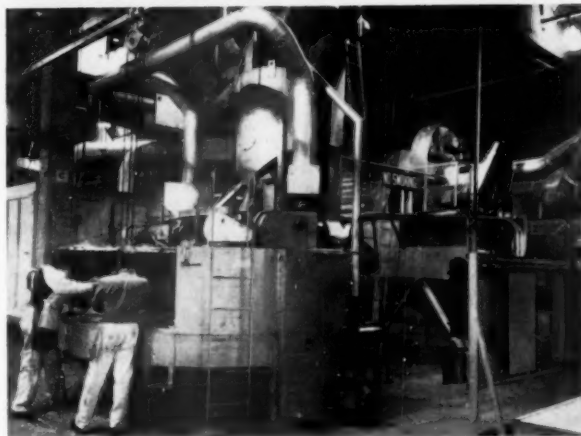


**UPPER RIGHT:** Fork lifting device for transferring green cores from machine to baking racks. The device was invented specially for this work and prevents unwieldy action in moving fragile cores.

**RIGHT:** Pouring magnesium. Men wear flame-resistant shirts and pants, face shields, spats and heavy gloves. Shank man who moves over smoking sprue is wearing respirator. Sulfur dioxide gas is introduced into molds as inhibitor before pouring. Cutoff man (right foreground) is standing on a secured plank, not on rollers as it might appear in photo.



**LOWER RIGHT:** Good housekeeping in cleaning room of the magnesium foundry. Note good ventilation on tablast unit, guarding, permanent ladders for oilers and repairmen, hoist for handling castings good lighting and use of aluminum paint.



each man so he will subconsciously identify himself as a "Safety Sid."

This approach has been aided by displays showing damaged equipment that prevented injury, using the name of the employee concerned as "The Foundry Kid who used his safety equipment."

Safety Sid made his appearance in June 1951 following collaboration by Harvey Johnsen, foundry

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# LOOKING BACKWARD

## ... And Ahead

By WILLIAM S. BRAY

**A** LOOK at past experience gives us an insight into the future program, so for a true picture of Quaker Rubber Corporation's program, let's reconstruct the story chronologically.

The corporation recently completed the first really successful year of accident prevention work. Accident frequency rate dropped from 24.7 in 1950 to 7.3 in 1951. Severity rate declined from .47 to .11. This improvement took place during a period of expansion when several hundred new workers were employed.

At the beginning of 1951, we had a safety committee of 15 members. Committee meetings were usually long and drawn-out. After the first half hour, everyone was tired and had little interest in the meeting's real purpose. We were lost in a maze of discussions, a situation not helped by the committee's many "arm chair" safety experts.

Being determined to do something about our program, we be-

WILLIAM S. BRAY is assistant personnel manager and safety director, Quaker Rubber Corp., Division of H. K. Porter Co., Inc., Philadelphia, Pa.



This stunt was aimed at the careless smokers.

gan with reorganization. All committee members were contacted and the necessity for reorganization was explained to them.

Our first move was to set up a smaller, more compact committee, which was limited to five members: The safety director, industrial nurse, union president, and two of the strongest personalities we could find. The latter two members turned out to be foremen who were known for their safety interest and performance.

Added to this group was an alternating foreman at each meeting. This permitted everyone,

This slogan occupies sign 30 feet wide at main entrance to the plant. Employees can't overlook it. Slogans are chosen from those submitted in contests.



Christmas provided a seasonal theme.

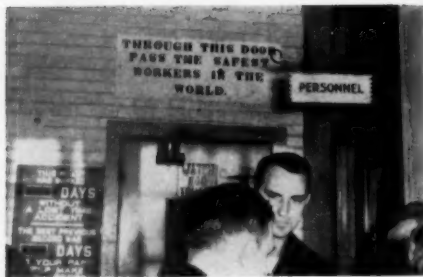
eventually, to participate actively on the committee.

This small group has the advantage of being easily contacted for emergencies or quick meetings for important decisions.

Realizing that the backbone of the program would be our foremen, we utilized the management extension school of Penn State for a 32 week course in foremanship and industrial relations for them. Our instructor was skillful and presented the subject of safety interestingly. Classes met every Wednesday for a two hour session both morning and afternoon.



One of the oldest stunts in safety. It was so corny the author hesitated to try it. But the donkey went over big.



Perhaps the sign over the door isn't to be taken literally but it gives employees something to live up to.

During the six weeks devoted to safety every educational technique available was employed — sound slide films, sound movies, posters, statistics, demonstrations, etc. By the time this part of the course was completed there was a noticeable improvement in the attitude of the foremen and it had begun to rub off on the other workers.

Our next problem was communications. In the past, results of safety committee meetings were not published, and very few of the foremen knew what was going on. As safety director, it was my duty to write the minutes of each meeting, and to see that each foreman and supervisor was kept informed. We also decided to publish another monthly report of accident statistics, notifying each department where it stood. With these communications we were gaining favorable publicity, and everyone was becoming more safety conscious.

We next introduced a large sign with a space on it for each department's safety record.

It is interesting to note that we didn't accomplish all of these things until the latter part of February, 1951. Up to that time we



Race track scenery on pay day helped get a safety idea across.

had experienced 11 disabling injuries. We added only four more in the remaining months of 1951.

This formal program was already beginning to show results, but in addition to the flow of communications between management and foremen, we wanted to get closer to the individual employee, try to correct some of his safety attitudes, and to help him form good safety habits. To accomplish this we used a plan which featured informality and a touch of humor, yet put the point across.

We tried several safety rhymes



Not exactly sweet girl graduates but the stunt was timed for graduation days.

in the form of weekly payroll stuffers, and they seemed to be quite popular. We like to make them as relevant as possible to our company's procedures. This program is still being used, and occasionally, for variety, we substitute a safety joke or anecdote.

To retain employee interest we tried several promotional stunts. For the first we rented a donkey and paraded her through the grounds with a sign on each side, which read: "I Don't Believe in Safety, But Look Who I Am." This was a corny stunt and I waited anxiously to see how it would be received. My fears were

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#### Safety Record — 1947-1951

Year	Manhours	Total Injuries	Time Charges	Freq. Rate	Sev. Rate
1947	1,450,000	57	734 days	39.3	.51
1948	Missing	41	478 days	Missing	Missing
1949	Missing	21	189 days	Missing	Missing
1950	1,375,000	34	643 days	24.7	.47
1951	2,045,832	15	236 days	7.3	.11



Gate of Alaska Pine mill showing varied safety signs and posters.

## Association Against Accidents

By BILL ANDREWS

### A British Columbia Trade Association's Program Saves Lives and Saves Employers' Dollars

**T**HE STATISTICAL facts can be stated simply. If you are a member of the British Columbia Lumber Manufacturers Association you will pay assessments to the provincial compensation board at a rate just about half what you would pay if you were in the same business in British Columbia and were not a member of the Association.

If you are an employee of a member company of the Association, your chances of being disabled by a work accident are just about half that of an employee of a similar company in British Columbia which is not a member.

What is more, if you worked for a member company during 1951, your chances of receiving a compensable disability were less than half your chances of so doing if you had worked for a member company in 1946.

No reporter's effort to find out why such a situation exists is ever complete and comprehensive. This article is based partly on what I saw, partly what I was told by men whose opinion I value, and partly on my reactions to a handful of individuals who, in the absence of more complete information, I take to be representative of the men in the Association who are



**WILL D. JENKINS**, pioneer British Columbia safety man, and founder of the BCLA's safety department. He retired in 1949 after 25 years' service as BCLA's safety director, and was replaced by Scotty Allison. Mr. Jenkins is still active in safety activities in British Columbia.



concerned about safety. Obviously, the comments on individuals do not represent any equitable distribution of the credit for a splendid job that involves the efforts of thousands of men in scores of companies.

We might as well start with Scotty—or W. M. Allison, safety director of the British Columbia Lumber Manufacturers Association, to make it formal, which he isn't. Scotty isn't the big wheel, the high brass, or the founding father of the safety program of the Association. But because he is the front-line tactical officer in the Association's part of the war against accidents, and because he is both a good and a colorful person, he makes a good starting point.

Here are some of the activities which the Association and its member companies delegate to Scotty's Safety Department:

1. Newsletters are prepared and distributed to all member companies outlining accidents and their causes, suggesting corrective measures.

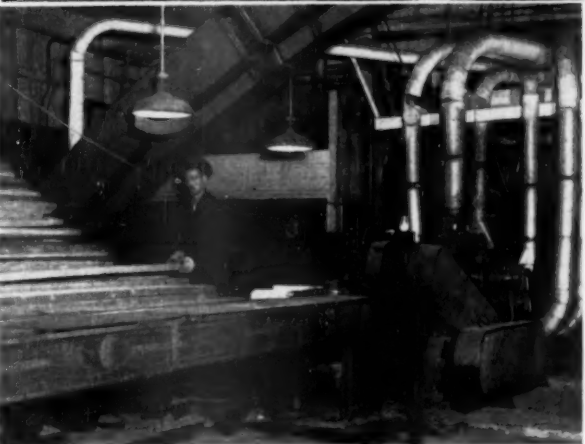
2. Scotty and his assistant, in 1951, made 460 mill visits and inspections—spread over 54 member companies operating in 71 different locations. These two men attended and took part in 57 plant safety committee meetings during the year.

3. Scotty carries the largest share of the day-to-day relations between the Association and the British Columbia Workmen's Compensation Board, discussing general policies and rates, specific cases, and prevention activities.

4. The Association Safety Department keeps and analyses the accident statistical record for all member companies.

5. Last year the Department had a hand in five regular Safety Con-

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PHOTOS at right show (top) a band resaw with enclosed feed rolls; (center) the head sawyer on a Swedish gang saw; (bottom) a planer feeder with enclosed belts and rolls. (Courtesy Alaska Pine)



# BREAKAGE

(Fiction)

By BILL ANDREWS

May 1, 1952

IT WAS DULLER than average, even for a staff meeting. Our president's normal beaming smile was changed to a kind of worried frown. It was one of those "things-are-in-a-bad-way-and-why-doesn't-somebody-do-something" sessions.

I wasn't paying too much attention, because safety wasn't on the agenda. The discussion had started with a review of customer briefs on quality, had shifted to possibilities of reducing absenteeism. Somebody yammered for a solid fifteen minutes on the need for some new machinery I didn't know anything about.

I don't think I dozed off, but I was certainly day dreaming, because the next thing I knew the

discussion was centered on damage to shipments, and Ryan was saying, "It isn't the crating. I've checked it. Somebody's slamming that stuff around—and I don't think all the slamming's being done in the box cars, either."

Luke, who handles claims said, "Amen, brother. The railroads are getting a little tired of me. They say, 'Luke, why is it that when we ship the same kind of thing from a competitor of yours, we get a certain loss rate, but when we ship your stuff, we get 25 to 50 per cent more loss?'" Luke looked around the room accusingly, and went on, "I say stuff's being damaged in the plant, and I'm being put in the position of trying to get settlements I don't

honestly think we're entitled to—and we're not getting 'em either. I'm no miracle worker—and I'm no crook. Something's wrong, bad wrong."

Our ice-blooded comptroller shuffled some papers, picked one out, and read, "Over the last three years, claims from customers for damaged shipments are up 38 per cent, of which approximately one-fourth represents price increases, rather than increase in physical damage. In the same period, spoilage in process remained constant. But damage to finished units in the plant—reported damage, I'm talking about, not damage overlooked or concealed—went up 24 per cent."

I looked across the room at Morton, head of the warehousing and shipping operation. So did everybody else, and Morton didn't enjoy being the center of attention.

"Okay," he said. "I'm on the spot. And you want to know what I can do about it? So did I. I want to know. I want one of you smart guys to tell me how to recruit, train, and hold together a staff of warehousemen who can move heavy stuff fast and still treat it like it was egg shell china. And do it within a budget for costs that was designed on the assumption that I'm moving feathers that are as unbreakable as cobblestones."

"Look, I'm a pusher. Don't put a fancy name on it. Don't make me out a great leader, or a master organizer, a miracle worker. I'm a guy who learned how to walk on tough guys' heels and keep 'em working without making them sore enough to knock my block off."

"Nowadays, if I walk on a mug's heels, he can spit in my eye and walk off and get another job. If I cuss him out, or can him, I've got a union steward screaming blue murder."

"In spite of everything, I'm moving the freight and moving it pretty fast and, everything considered, darned cheap. Now you say I'm breaking stuff, and I know that, maybe better than you do.

The way some of my cowboys are trucking and stacking stuff, I wonder any of it doesn't get broken. Come on, wise guys, you tell me what I'm supposed to do about it."

I looked the group over during the pause that followed that tirade.

The comptroller was poised, cold and scornful. Joe Roscoe, our president, looked around trying to find a man with an answer. Some of the department heads were enjoying the spectacle of a guy on the spot fighting back. Our industrial engineer was deep in thought and showing no signs of coming up out of the deeps with anything concrete.

I began to put a few facts together that had previously seemed isolated and unimportant. A pile of cartons I'd beefed about because it was ready to fall into a heavily traveled aisle. A report from Harry's inspection on stuff stacked close to the ceiling, effectively blocking sprinkler heads. A girl knocked down by a forklift truck. And a proud guy in the warehouse annex bragging about his gang, backing his brag with accident statistics.

"How about the annex?" I asked.

Everybody looked a little blank. Morton shrugged, "I haven't got anything separating losses between the annex and the main warehouse. Leonard's done a pretty good job there, I think. Why?"

"The accident rate's been better there than in the main warehouse," I said.

Morton said, "Yeah, but we're talking about damaged freight, not damaged people."

I needed him. "Want to bet they aren't related?" I asked.

\* \* \*

After that meeting, I started digging. I haven't got the dope together yet—not enough for a conclusive presentation. But I did go over the setup with Leonard, the annex boss, and with Joe Kawalski, his Number Two straw boss.

Obviously, the annex has certain

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## Safety Must Always Come First

By H. W. MORRISON

*President and Chairman, Morrison-Knudsen Co., Boise, Idaho.*

**N**O MEN are to be more respected, or less envied, than those engaged in the unending crusade for safety—for the protection of human beings from injury and death, usually by carelessness. Before every public holiday, authorities warn the nation of the hazards of heavy traffic, yet the holiday casualties pile up in figures that run off the pages, and broken bodies that crowd the hospitals.

Our safety men of construction are in a highly specialized and highly important branch of that life-saving craft—a branch that takes men of steel nerves but tender hearts. The longer a safety man works for a single company, the more frequent is the job-accident victim a personal friend, or at least an acquaintance.

A recent glance at the records of our M-K Employees' Foundation reveals the sobering fact that a good many hundreds of dollars have been donated this year to meet the emergency needs of men who were hurt, and to aid the families of deceased Em Kayans some of whom died of injuries received on the jobs. These, of course, are proper uses of the Foundation's funds which are contributed voluntarily by many of us to take care of our own—but each new case only re-emphasizes the need, always and everywhere, to keep *Safety First* in our thinking and our actions.

We cannot repeat too often to every executive, every supervisor and every workman on every M-K project that there is no such word as "expendable" in the M-K lexicon as applied to human beings. Machinery and equipment, tools and supplies and materials of all kinds are expendable, but not men. If there is, in any M-K organization, a cynic or a fatalist who ignores the safety regulations on the ground that, "when it's my turn I'll get it," let's get rid of him. The disaster he is courting may take a good man with him.

The ever-increasing size of our mobile machinery brings a corresponding responsibility for added safety precautions by and for the men who work around it. Too often a man is crushed by one of the great new trucks or tractors, such as the oiler who stepped in the path of a 25-yard truck in mysterious confusion of his own signal. Let me repeat here again, as often before, that while our work is done by men and machines, without the men the machines never move. Their lives and health must be the first considerations on all M-K work.

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## Congress Is Coming

THE WEEK of October 20 will be the date of the 40th National Safety Congress and Exposition. Five Chicago hotels will house the sessions—Conrad Hilton (formerly the Stevens), Congress, Morrison, LaSalle and Sheraton.

Acceptances have been received by speakers for two prominent spots on the program. The Banquet on Wednesday evening will

be addressed by the Hon. Luther W. Youngdahl, Judge for U. S. District Court for the District of Columbia and formerly governor of Minnesota.

Jesse W. Randall, president of the Travelers Insurance Company, Hartford, Conn., will be a featured speaker at the Annual Meeting.

This year the entire Safety Exposition will be under one roof

in the Conrad Hilton hotel. Because of structural changes in the Congress Hotel, exhibit space there is not available this year. In addition to the Exhibition Hall on the lower lobby of the Hilton, the Normandy Lounge on the second floor has been secured, with additional space on the third floor.

Special features of the program will commemorate the first Safety Congress held in Milwaukee in 1912.

DATE AND HOTEL ASSIGNMENTS

	(Hotel)	Oct. 20 Monday		Oct. 21 Tuesday		Oct. 22 Wednesday		Oct. 23 Thursday		Oct. 24 Friday
		AM	PM	AM	PM	AM	PM	AM	PM	AM
<b>Sectional Sessions</b>										
Aeronautical Ind.	Hilton		X				X			
Air Transport	Hilton				X				X	
Auto & Mach. Shop	Congress		X				X			
Cement & Quarry	Hilton				X		X		X	
Chemical	Sheraton		X		X		X		X	
Coal Mining	Hilton		X		X		X		X	
Commercial Vehicle	LaSalle			X	X	X	X	X-jt.	X	
Construction	Hilton				X		X			
Electrical Equip't.	Sheraton				X		X			
Food	Morrison				X		X		X	
Glass & Ceramics	Congress		X		X					
Industrial Nursing	Hilton			X		X			X	
Marine	Morrison				X		X		X	
Meat Pkg.—Tng. & L.	Congress		X		X					
Metals	Hilton		X		X		X		X	
Mining	Hilton		X		X		X		X	
Petroleum	Hilton		X		X		X			
Power Press	Congress				X				X	
Printing & Publ'g.	Hilton				X		X			
Public Employee	Hilton				X		X			
Public Utilities	Sheraton				X		X		X	
Pulp & Paper	Sheraton		X		X		X		X	
Railroad	Morrison				X		X		X	
Rubber	Sheraton				X		X			
Textile	Congress		X		X					
Traffic	Congress		X		X	X	X		X	
Transit	LaSalle				X	X	X	X-jt.		
Wood Products	Congress		X		X		X			
<b>Divisional Sessions</b>										
Farm	LaSalle			X	X	X	X			
Home	Hilton		X Eve.	X						
School & College	Morrison		X	X	X	X		X	X	
Women's Activities	Blackstone		X							
<b>ASSE—Subject Sessions</b>										
ASSE Ann. Mtg.	Hilton			X						
Subject Sessions	Hilton Congress & Sheraton					X		X		X
<b>General Sessions</b>										
Annual Council Mtg.	Hilton	X								
Banquet	Hilton						X Eve.			
Early Morn. Sess.	Hilton			X		X		X		X

# Heat, Humidity and Hazards

## And how to get along with them

**L**OOKING over the appalling list of summer hazards is enough to take all the pleasure out of the season to which everybody was looking forward last winter (and still is as this is written in Mid-April).

However, few persons, except safety directors and company physicians, give much serious thought to the hazards of the months ahead. This optimism is a fortunate human trait, until it reaches the point where even elementary precautions are ignored.

Those who watch the accident rates know that between Easter and the first frost people will be spending more hours in an extremely hazardous pursuit—recreation. So warnings and instructions on safety and health appear in employee publications and on bulletin boards.

While much of the emphasis has been on recreation mishaps, hot weather brings additional hazards to many jobs. Many industries, such as construction, agriculture and food processing, step up their activities during the summer months. Seasonal industries take on many new workers, some of whom will be just out of school and unfamiliar with their jobs.

As the temperature rises there may be increased objection to wearing goggles and other personal protective equipment. Many workers will wear no more clothing than the law and company rules require. Too much haste in getting that outdoor look means scorched arms and shoulders. The sun's rays have just as much bite on an outdoor job as they have on the beach or the golf course.

More dust and other light foreign bodies are blown about and a large number of these particles get

in eyes. While their impact is not severe, any eye case is a potential source of infection, particularly if neglected or if an amateur eye surgeon goes to work on it.

Both vegetable and animal enemies are more of a menace when outdoor activities are at their peak. Many construction and public utility workers, as well as picnickers, suffer from exposure to poison ivy, bee stings and dog bites. Poisonous snakes are more likely to be encountered, and in infested areas protective garments and snake bite kits are wise precautions.

The traffic hazards of winter, with poor visibility and icy pavements, have received plenty of publicity. But an astonishing total of highway crashes occurs when weather and highway conditions are perfect. The reasons are obvious enough—heavier traffic, higher speeds, longer hours at the wheel, and the anesthetic effect of pleasant conditions on the protective senses.

### Heat and Health

The human body can function over quite a wide range of environmental temperature, humidity and air movement. But extremes may impose severe strains on the body, with noticeable effects on comfort, efficiency and health.

Over most of the habitable areas of North America it is possible to keep fairly comfortable in winter. Work places and homes can be heated and the body protected against outdoor exposures by adequate clothing.

But keeping comfortably cool when temperature and humidity are high is a much more complicated problem. Air conditioning for summer comfort isn't cheap,

either in installation costs or in operation and maintenance.

Control of temperature and humidity has proved practicable in manufacturing operations where conditions must be controlled because of the product. It also has a definite value in attracting customers to stores and restaurants. Offices also find that it attracts and keeps employees. Care must be taken to avoid too much difference between indoor and outdoor temperatures, or every cold will be blamed on the air conditioning.

Fans, both portable and stationary, are helpful in keeping the air in circulation but their effectiveness decreases rapidly as the temperature reaches the 100 degree mark.

One of the most trying jobs in industry, from the standpoint of heat, is that of the crane operator. Due to the fact that warm air rises, temperatures in the crane cab often become extremely high and the operator's discomfort is increased by fumes, gases and dusts from operations below.

With temperatures over 100 degrees fans give no relief. Air conditioning of crane cabs has been found practical and tests have shown that it is possible to maintain a temperature of 80 degrees in the cab with surrounding temperatures of 140 degrees.

In the body's temperature regulating system most of the cooling is from the skin. At normal temperatures and above, only a minor portion of the heat is given off through the respiratory system.

Perspiration and elimination cause a constant loss of water, which may be excessive in hot weather. For health and efficient functioning, the water content of

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## CHECK LIST FOR

# Bindery Housekeeping

By LILLIAN STEMPE

**G**OOD HOUSEKEEPING is the same in principle in every plant—canning factory or foundry. The good housekeeping payoff is the same in every plant, too—reduction in waste and injury rates, and eradication of fire hazards.

But the problems involved in housekeeping vary tremendously from plant to plant. Binderies—where books get their covers and all matters of printed material are trimmed around the edges and stitched together—have their own peculiar set of housekeeping problems, involving scrap paper, paste, spray residues, and so forth, plus some problems common to almost

all industries, material handling and storage, nails and wires, fire equipment access, and so on.

Here's a checklist of special housekeeping problems in binderies and methods of eliminating them.

*Paper cutting machines.* Trim-mings and shavings from paper-cutting machines can be kept off the floor by putting up burlap bags in mailbag stands. The stands keep the bags upright and open, save space, and make for easy disposal.

LILLIAN STEMPE, free-lance writer and industrial consultant, has contributed many articles on safety in the printing industry to trade journals and Council publications. Miss Stempel is author of the soon-to-be-published safety manual for the printing and publishing industry.

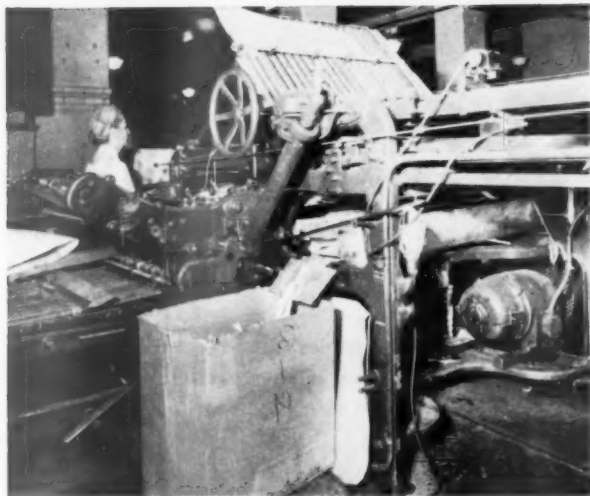


Figure 1. Air ducts on paper cutting machines reduce housekeeping problem by carrying scrap directly to baling room. (Courtesy Western Printing & Lithographing, Poughkeepsie, N. Y.)



Figure 2. Scrap disposal is a necessary part of folding machine operation—otherwise a serious housekeeping and fire problem results. Note shavings on motor and other electrical devices. (Courtesy U. S. Government Printing Office)





←  
Figure 3. A simple method of controlling scrap on folding machines is to install a small conveyor which collects the shavings and dumps them into a container. (Courtesy U. S. Government Printing Office)

Air ducts installed at paper-cutting machines reduce the paper-scrap problem to the zero-point, practically, by carrying trimmings directly to a baling room. (Figure 1.)

Another method—simplest and most economical—is to provide cardboard boxes, buggies, and carts for accumulating and disposing of paper trim.

**Folding Machines.** Without some method of scrap disposal at these machines, accumulation of waste becomes a serious operating and fire hazard. (Figure 2.) A simple method of controlling scrap is a small conveyor which collects and dumps shavings into a container. (Figure 3.) Conveyor belts can also be used to carry away scrap paper from trimmers and chipboard cutting machines. (Figure 4.)

**Paper drills and index-cutting machines.** Small scraps from these machines, if allowed to fall on the floor, are as difficult to collect as confetti. Removable bins should be installed under these machines—and not be allowed to overflow.

**Glue and paste.** Where possible, glue should be mixed in a separate room. Binderies have found that this simplifies housekeeping in the



Figure 4. A conveyor belt installed on trimming machine solved housekeeping problem at Runkle-Thompson-Kovats printing plant in Chicago. (Courtesy Runkle-Thompson-Kovats Company, Chicago)

bindery room, reduces fire hazards, and makes bindery work conditions more pleasant by eliminating glue odors and reducing heat. Separate glue rooms should be exhausted with venting to the outside, and should be equipped with automatic sprinklers.

Glue which is allowed to accumulate and harden in the pot becomes quite difficult to remove and collects dirt and scraps. The main objection to it, however, is the unsightly appearance it presents. Glue pots, therefore, should be cleaned regularly and frequently—preferably after each work shift.

**Rope and metal tape.** Rope—from bundles of signatures—left on bindery floors is a serious tripping hazard and, with the price of rope what it is, a waste of money. It's good accident prevention and good economy to provide wall brackets on which rope can be hung. If metal tape is used in place of rope, carts with enclosed sides should be provided for its disposal.

**Bundle boards.** These are placed at both ends of bundles of signatures when they are folded and compressed and are removed

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# Cause AND CURE

These examples, taken from actual cases, are presented for the use of people responsible for safety. It is believed that these, or similar cases experienced in the reader's own plant, can serve as a basis for safety discussion.

## Clamp Properly

(We are indebted to our British cousins for this one, which is taken from the quarterly *Accidents—How They Happen and How to Prevent Them*, issued by the Factory Department, Ministry of Labour and National Service, London.)



"A vertical drill was used to drill holes more than 3 inches diameter at both ends of heavy side-link forgings, 4 ft. 8½ ins. long. Two "U" shaped clamps secured by bolts in the table slots were used to secure the

job and, with a clamp on each side of the forging, the job was firmly held. One side-link had been drilled in this way; when it was taken out and replaced by another similar link, the clamps were both placed on the same side of the forging, no resistance, except the clamping pressure, thereby being offered to resist rotation under the influence of the drill.

"When the operator started to drill, the forging slipped out from under the clamps, swung round, and trapped the man against the machine pillar, breaking his thigh.

"When a drill is used, as in this case, at one end of the job, an effective grip of the work can be secured by placing one clamp on each side of the job . . . , a practice which had normally been followed at the works concerned and which ensures that the shank of one bolt is disposed so as to resist positively the twisting effect of the drill. Alternatively both clamps may be placed on the same side, so that bolts of both clamps resist the torque.

"When work is being done at intermediate positions along the length of the job, so that the drill is between the clamps, the bolts should always be arranged on opposite sides of the work so as to resist the torque applied by the drill."

## Check Signals



A mechanic was making an adjustment in the clevis on a ½ inch rod projecting from the air chamber of a truck. He had difficulty in removing a pin and asked another mechanic to go up into the cab of the truck

and operate the pedal which applies air to the air chamber and moves the rod forward and disengages the clutch. This would give enough slack to remove the pin from the clevis. The mechanic who was making the adjustment had his left hand free to remove the pin and his right hand was around the rod with his right thumb over a 2¾ inch washer which is a stop for the travel in the rod when it moves against a bracket.

The mechanic in the cab prematurely stepped on the pedal and caused the rod to move forward catching the other mechanic's right thumb between the washer and the bracket through a misunderstanding. This accident is typical of many that happen when two men work together on large equipment. To prevent such accidents, signals or clear instructions should be agreed upon before the job is undertaken and no movements should be made without a signal or instruction nor should any part be operated without a clearly understood signal or instruction.

# The SAFETY VALVE

## Devoted Doctor

A DOCTOR can't forget that he's a doctor—even on vacation. He's like an editor who's always looking for copy.

When Dr. Walter H. Roehll of Middletown, Ohio, boarded the City of San Francisco bound for a Hawaii vacation with his wife, he wasn't expecting to practice medicine on the trip. But for some reason, intuition perhaps, he took along two million units of penicillin along with morphine, phenobarbital, aspirin and a hypodermic syringe.

And many passengers on that train had reason to be thankful for his professional instinct.

Dr. Roehll was the only physician on the sleek streamliner which for three horrible days and nights was pinned to a mountain-side by the most violent snow-storm in fifty years. For 72 hours he worked, practically without sleep. *Today's Health* (April issue) presents a graphic story of this ordeal by John F. Allen of the *San Francisco Examiner*.

All the finest qualities of human nature, as well as some of the baser traits, are displayed in such an emergency. Courage and fortitude are not rare virtues but they are not much help unless combined with skill and know-how.

As the only medical man on board, Dr. Roehll naturally assumed the leadership. He had splendid help from several registered nurses on board as well as from men and women with some knowledge of first aid, and from others whose steadiness was reassuring. As Dr. Roehll expressed it, "A calm woman can often be as useful as a skilled nurse."

And among the heroes were the Mexican track workers who played

an important part in the rescue.

The food supply dwindled, even elementary sanitation measures became difficult, and the doctor's meager medical supplies were growing short. Colds were increasing and there was the possibility of an outbreak of pneumonia or meningitis. There were many children on the train.

A drug addict went berserk and the doctor had to quiet him with regular shots. Several passengers in one car were nearly asphyxiated when the exhaust pipe of a propane engine operating an electric unit became clogged with snow.

We may never feel the force of enemy action but the possibility of disaster in every day life emphasizes the value of training and emotional conditioning. Here is Dr. Roehll's advice in capsule form:

"In disaster, potential or real, I'd say the key word is 'conservation'—conservation of energy, of food, of water, of all the spiritual, mental, and physical stock."

## Searching the Scriptures

THERE IS NO REASON for being surprised when the mayor of a large city quotes Scripture in a public address. But I confess I sat up and listened when James A. Rhodes of Columbus did so in extending the city's welcome to the recent All-Ohio Safety Congress. His brief address was no less an invocation than the one delivered by the clergyman.

The mayor of my own town (Park Ridge, Illinois) is a good churchman and nationally known as an inspirational speaker. While my acquaintance with public officials is rather limited, I am sure there are many more like him. But the popular idea of a poli-

tician, unfortunately, is something quite different.

Mayor Rhodes' quote, which I looked up in the Gideon Bible in my hotel room, was from First Samuel. David's brothers had reproved him severely for leaving the sheep and following Saul's army against Goliath and the Philistines. They regarded it as merely boyish eagerness for adventure.

But David answered: "Is there not a cause?"

That should remind us that we too have a cause, as well as a job.

## In This Issue . . .

MOST COMPANIES recognize the value of a creditable record for safety but not all of them are using it effectively in the public relations program. Preventing accidents is not enough; we must also tell the public about our work. But, as E. S. Bowerfind reminds us, give the press both the good and the bad news. We can't expect the editors to give our safety accomplishments a good play if we clam up on them when a serious accident occurs. (Page 20)

Charley Alexander, head of NSC's Industrial Department, gets around the country quite a bit, has some interesting experiences and meets interesting people. Here is one of his travelogs—hope we'll have more in future issues. (Page 23)

A cartoon character can become a very real person to an organization, and he is especially useful in a safety program. Most of them are fall guys, with all the undesirable traits of unsafe workers combined in one. Safety Sid, however, is a positive example, the kind of fellow the company likes to hire and the men like to work with. He's doing a good job of getting the safety idea across at the Ford Aircraft Engine Division in Chicago. (Page 24)

*Carman Fish*



There is terrific energy in the force of nature whose German name has been applied to a swift and destructive type of warfare. But there are effective methods of conducting lightning harmlessly to ground.

## The Original Blitz

**T**HE ARRIVAL of Spring in the Northern latitudes serves as a reminder that the lightning season isn't far off. Each year during the warmer months—especially July and August, lightning kills and injures hundreds of persons and is responsible for millions of dollars in property damage. In some tropical and subtropical regions lightning is an all-year hazard.

Although many thousands more are killed in home and industrial accidents and on the nation's highways than by lightning, this phenomenon of nature still remains the most spectacular, awe-inspiring killer of them all.

Some 90 per cent of the fatalities and injuries occur in rural areas where there are no tall structures to afford protection. Deaths in large industrial plants are rare. Here the tall steel-frame buildings safely conduct the lightning to ground.

Those engaged in outdoor work or recreation are the most frequent victims of lightning. Following are some rules for the protection of individuals so engaged:

1. When a storm threatens, suspend activity and seek shelter in the largest building available, preferably a metal or metal-frame building, or at least one that is protected by independently grounded lightning rods.

2. Small buildings in exposed locations are favored targets for lightning. Isolated trees, hilltop and ridge areas, and wire fences or other metal objects, such as pipes, should be avoided.

3. Caves, ground depressions, ravines, and dense woods are all good places to seek shelter.

4. Stay away from bodies of water such as beaches, swimming pools, fish ponds.

5. If you are in a car when the storm strikes remain there—the steel body offers good protection.

6. In a building the safest spot is in the basement or a lower floor away from windows and doors and as close to the center of the room as possible.

### Oil Containers

In some industries lightning protection is a special problem. In the petroleum industry exten-

sive precautions must be taken as it is not necessary for an oil container to be struck directly in order to cause a fire. Many refinery fires have been caused by a small spark igniting containers which were several hundred yards from the main discharge point.

For adequate protection against these sparks or minor discharges, containers should be kept closed with one breathing vent being the only exception. All isolated pieces of metal in or near the vapor space should be grounded. All hazardous areas should be completely enclosed by a special cage or network which is securely grounded.

### Smoke Stacks

Smoke stacks are vulnerable spots in most industries. These structures should be equipped with a protection system which will drain off the electrical charges or conduct them with a minimum of resistance to ground.

Metal stacks should be grounded. Masonry and concrete stacks should be equipped with approved lightning rod installation. Conductors should be of copper in the form of cable or tape. All other projecting structures such as towers, flag poles, signs, etc., should be protected in a similar manner.

### Lightning Arresters

Interrupted production and quite often serious fires are the result when overhead power lines are struck by lightning. Electrical equipment will not withstand lightning voltages, so arresters are necessary to divert the lightning to the earth before it is able to damage the equipment.

Power lines entering or leaving a plant which are over 100 feet in length require arresters. These arresters should be located as close as possible to the terminals of the transformer or other equipment for which protection is desired. Resistance of the ground connection should be low and should never exceed 5 ohms.

To better protect rotating equipment surge capacitors should be used in addition to the arresters. Breakdowns between individual

turns of the machine windings are often prevented by the use of these capacitors which reduce the rate of increase of the surge potential. They should be mounted at the machine for best performance.

Maintenance is just as important as installation, and plant power protection should be checked frequently. Following are some recommended practices to follow when making such inspections:

1. Leads from power lines to lightning arresters should be in good condition and as short as possible.
2. Arresters should be free from dirt and chemical deposits.
3. The cones inside the tank of obsolete electrolytic type arresters should be checked for corrosion. The electrolyte solution should be at the prescribed level.
4. Rod points on stacks should be free from corrosion.
5. Down conductors from rods or arresters should be intact and as short and straight as possible.
6. Resistance of grounds should be inspected to see that the 5 ohm maximum is not exceeded.

### Tree Protection

Trees are frequent victims of lightning flashes and their protection is important for a number of reasons. Some trees have an historical value, others overhang buildings, some offer refuge for persons or livestock during electrical disturbances.

For adequate tree protection



Demonstrating lightning protection for ships with a model pleasure craft.



More than 3,000,000 volts struck the distribution transformer carrying current into the toy house. Lights stayed on because the transformer is protected against lightning by de-ion gaps which detour electrical bombardments to ground. The lightning was man-made in the Westinghouse laboratory at Sharon, Pa.

copper wire conductors should be run from accessible heights of main branches to the trunk. There they should be connected to a standard size conductor which is coursed to the ground. The conductor should be extended in a shallow trench at least twelve feet from the trunk in the form of a loop. This should also be in a shallow trench. In this way injury to the roots from grounding can be prevented.

Depth groundings should be made at the ends of the loop conductor. It is recommended that the groundings be effective beyond the root spread, and be carried down to permanent moisture. For tall, narrow-topped trees one ground should be sufficient. More than one ground may be needed for spreading trees.

In clumps of trees only the taller, larger ones need protection.

### Steel Frame Buildings

It is possible for steel frame buildings to be damaged by lightning discharges, consequently air terminals should be provided to protect them adequately. These terminals should be fastened to members of the steel frame, which

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# CARBON MONOXIDE

Published by National Safety Council  
425 North Michigan Avenue, Chicago

1. Carbon monoxide (CO) is a gas composed of carbon and oxygen. It is formed by the incomplete combustion of such carbonaceous materials as oil, wood, natural and manufactured gas, explosives, coal, or coke. It is found in the exhaust gases of internal combustion engines. Among the many industrial operations that produce it are found forges, blast furnaces, and cooking ovens.

2. The gas is flammable, non-irritating, colorless, tasteless, and has no odor except in concentrations high enough to be almost instantly fatal. Consequently it may be present in harmful concentrations without being detected by the senses.

3. Following is a list of some of the physical properties of carbon monoxide:

Molecular weight..... 28.01  
Melting point..... -207°C (-340°F)  
Boiling point..... -192°C (-313.6°F)  
Specific gravity..... 0.814 at  $\frac{-195^{\circ}\text{C}}{4^{\circ}\text{C}}$   
or 0.9671 (Air = 1)

Auto ignition  
temperature ..... 648.89°C (1200°F)

Solubility in water.....  $\frac{3.5 \text{ ml}}{100 \text{ ml}}$  at 0°C

$\frac{1.5 \text{ ml}}{100 \text{ ml}}$  at 60°C

Explosive limits by Volume in air  
12.5% to 74.2%

This Data Sheet is one of a series published by National Safety Council. It is a compilation of experience from many sources. It should not be assumed that it includes every acceptable procedure in its field. It must not be confused with American Standard Safety codes; federal laws; insurance requirements, state laws, rules and regulations, and municipal ordinances. Reprints of Data Sheets are available from the National Safety Council.

4. Since the density of carbon monoxide is approximately that of air, the two will mix readily. If the two gases differ in temperature, there may be a temporary thermal stratification, but unless conditions are unusual, carbon monoxide will be usually well mixed with air.

5. A mixture of carbon monoxide and air, within the flammable or explosive limits, presents a serious fire and explosion hazard; but the conditions which produce such high concentration are not usual. This data sheet, therefore, concerns carbon monoxide as a poison only.

## Physiology

6. The main effect of carbon monoxide on the body occurs when it combines with the hemoglobin

of blood and so prevents it from carrying oxygen to the tissues. It is this anoxia, or lack of oxygen, in the tissues that causes the symptoms, the aftereffects, and finally death from carbon monoxide gasing. Because it combines with the hemoglobin, carbon monoxide is classed as a chemical asphyxiant.

7. Since the brain and nerve tissues require more oxygen than other tissues do, they naturally suffer first. For this reason, most symptoms and aftereffects result from damage to these tissues.

8. Most of the damage from carbon monoxide poisoning takes place during the time the tissues are deprived of their normal oxygen supply. If this anoxia is both severe and prolonged, brain degeneration may occur. In addition to the degeneration of nerve tissue, serious carbon monoxide poisoning produces capillary hemorrhages.

9. When the lack of oxygen has not been too severe, there may be only irritation of the brain cells without degeneration, in which case the symptoms soon disappear. If tissue degeneration does take place, it may become progressively worse and end in death, even after the blood has been entirely freed of the gas. Since a brain cell can-



not be regenerated the effect of its destruction is permanent.

10. The affinity of hemoglobin for carbon monoxide is about 300 times greater than its affinity for oxygen, hence carbon monoxide in preference to oxygen is taken up and retained by the blood. The compound formed, carboxy-hemoglobin, is not stable and in atmospheres free of carbon monoxide converts slowly to hemoglobin and carbon dioxide. When the hemoglobin is freed of the gas, it resumes its normal function and the red corpuscles are found not to have been destroyed or altered.

#### Symptoms

11. Carboxy-hemoglobin has a bright cherry-red color which gives the characteristic color to the lips, eyelids, ears and skin of the

**TABLE I**  
**Symptoms of Carbon-Monoxide Poisoning**

##### MILD POISONING

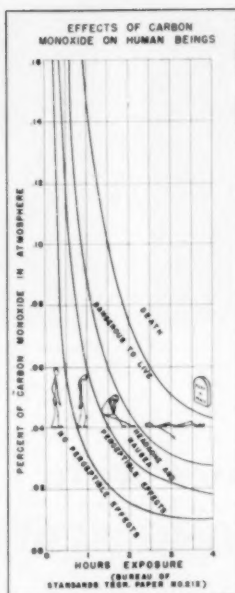
Sensation of tightness across forehead.  
**Headache.**  
**Nausea.**  
**Dizziness.**  
Abdominal distress.  
Change in disposition, evidenced by irritability, loss of memory, and loss of accuracy.  
Occasional hallucinations.  
Insomnia.

##### SEVERE POISONING

Unconsciousness.  
Convulsions.  
Lockjaw.  
**Needless movement of arms and legs.**  
Uncoordinated attempts to crawl or walk.  
Aimless talk and muttering.  
**Accelerated breathing.**  
Discoloration of skin, usually too bright red.

##### VERY SEVERE POISONING

Profound coma.  
Body chills.  
Complete quiescence.  
**Slow and weak breathing, broken by gasps or no breathing at all.**  
**Pulse rapid and thready.**  
Uncontrolled urination and defecation.  
Reflexes gone or hard to stimulate.  
These symptoms represent extensive clinical experience and all may not be encountered in every case of poisoning. Those printed in bold face type are the most commonly encountered.



asphyxiated patient. Only rarely, however, are these visible signs of carbon monoxide poisoning present.

12. An atmosphere containing 100 parts of carbon monoxide in 1,000,000 parts of air (0.01 per cent) can saturate the hemoglobin only to 17 per cent, no matter how long the exposure. At this point of saturation, there are no immediate visible symptoms. An atmosphere containing 200 parts per million (0.02 per cent) will saturate the hemoglobin about 20 per cent and produce the symptom of mild poisoning in a few hours. Inhaling a mixture of 1,000 parts of carbon monoxide in 1,000,000 parts of air (0.1 per cent) saturates the hemoglobin to about 60 per cent and usually causes unconsciousness in about two hours, while a mixture of 10,000 parts of carbon monoxide in 1,000,000 parts of air (1.0 per cent) saturates the hemoglobin to about 90 per cent and produces death in just a few minutes.

13. Among the common effects of mild carbon monoxide poisoning are shortness of breath, headache, dizziness, muscular weakness and nausea. Occasionally one encounters memory disturbances, visual, speech and hearing disturbances and even psychosis, neuritis and paralysis. However, these aftereffects result only from the most severe gassing and usually only after prolonged unconsciousness.

14. Pneumonia as a result of carbon monoxide gassing is not caused by direct irritation, but by the entry of saliva, infected mucous, vomitus, or other foreign

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**Table II**  
**First-Aid Treatment for Carbon-Monoxide Victims**

1. The patient should be removed immediately from the contaminated area to an area free from the gas and comfortably warm.
2. If breathing has stopped, or is weak, or consists only of occasional gasps, artificial respiration should be administered until normal breathing is resumed.
3. A physician should be called as soon as possible.
4. Regardless of the apparent severity of the exposure, oxygen should be administered as soon as possible, with artificial respiration if it is necessary. Pure oxygen is preferred, but if a carbon dioxide-oxygen mixture is used, it should be administered only by someone especially trained in its use.
5. It is extremely important to keep the patient warm and out of drafts. Blankets may be used to maintain body temperature. External heat sources such as hot water bottles or heating pads should be used with extreme caution. Very severe burns and blisters can be produced on an unconscious body by heat sources that seem quite cool to the person applying them.
6. The victim should be kept at rest, lying down, to prevent a strain on his heart. As an aid to circulation, his body can be inclined, head down, at a slight angle. He should be treated as a convalescent and given plenty of time to rest and recuperate.
7. The aftereffects of carbon monoxide poisoning should be treated symptomatically by a physician. They may be serious enough to warrant hospitalization.



A swinging scaffold of the block-and-fall type. For safe operation the user must make sure that hitches are securely tied and rope and blocks are in good condition.



Safer and more effective is the machine-type scaffold. Durable galvanized wire rope wound compactly on a drum replaces dangling ropes. Machine locks positively.

## Safer Maintenance with SWINGING SCAFFOLDS

**THE SWINGING SCAFFOLD** is a useful piece of equipment for painting, tuck-pointing, sand-blasting, and other maintenance work. Like all other types of scaffolds, safety in its use depends on construction, inspection and upkeep.

When a swinging scaffold is involved in an accident, investigation often reveals insecure anchorage, a hitch insecurely tied, a defective block, a rope weakened by abrasion, or a block that became detached from a stirrup. These are some of the points that must be watched closely.

Scaffolds must be hung securely from eaves, cornices or other reliable supports with properly placed hooks of sufficient strength to provide a factor of safety of 4. All anchorages should be carefully inspected before hooks and anchors are placed.

Scaffolds should be provided with guard rails, not less than 36 inches or more than 42 inches, with 5½ inch toeboards.

First grade manila rope of at least ¾-inch diameter should be used for hand-pulled block-and-fall scaffolds. For acid cleaning,

fiber rope should never be used. Steel cable 5/16 inch in diameter is recommended.

The machine-type scaffold using steel cable, and raised and lowered by a hand-operated windlass at each end, has numerous advantages over the familiar block-and-fall type. The hoisting mechanism has a direct ratchet or a pinion

gear for raising and a worm and gear for lowering, with devices that prevent slipping. Galvanized wire rope winding compactly on a drum replaces the dangling rope which requires a barrel or other receptacle at ground level for safe storage.

The wire rope is resistant to abrasion, corrosion and moisture but reasonable precautions should be taken for lubrication, handling and storage.

Operation of the machine-type scaffold is simple. To raise, it is only necessary to turn the driving handle. The rope winds smoothly onto the drum. In lowering, the worm handle is turned clockwise after making sure the driving handle is disengaged. The lowering handle, a safety feature in itself, is pulled forward as it is turned. There is no tying and untying of hitches.

For general maintenance work, the light duty type of scaffold is adequate. It is equipped with 75 feet of ¼ inch galvanized steel wire rope. For jobs which require a longer drop, slightly larger scaffolds are available in 100, 150 or 200 feet of cable.



Close-up of mechanism for operating machine-type scaffold. It has a direct ratchet or a pinion gear for raising and a worm and gear for lowering. (Photos by Patent Scaffolding Company)

## Inter-American Council Elects Officers

ENTHUSIASM for the promotion of safety activities in Latin America was evidenced at the fourteenth annual meeting of the Inter-American Safety Council held in New York, January 30. A report of a recent visit to Central and South America by James S. Carson, vice-chairman of the board, Colonial Trust Company, showed that government, industry and the press in the 12 countries visited were most cooperative.

The following officers were elected:

President—G. P. Sawyer, vice-president, Cerro de Pasco Copper Corp.

Vice-president for Oil, Mining and Utilities—LeRoy Wilson, manager-employee relations, Creole Petroleum Corp.

Vice-president for Transportation Air, Rail, Shipping—John T. Shannon, vice-president, Pan American-Grace Airways, Inc.

Vice-president for Safety Equipment—W. G. Legge, president, Walter G. Legge Co., Inc.

Vice-president for Banks, Investment Companies and Insurance—R. J. Farlow, secretary-treasurer, American & Foreign Power Co., Inc.

Vice-president for Manufacturing and Construction—R. A. Hummel, president, Lone Star Cement Corp.

Vice-president for Safety Councils, Governmental and other organizations—J. S. Carson, vice-chairman of the Board, Colonial Trust Company.

Vice-president for Education and Public Safety—W. A. Cutter, assistant director, Center for Safety Education, New York University.

Treasurer—K. B. Sprague, comptroller, American & Foreign Power Co., Inc.

Secretary & Assistant Treasurer—Pedro M. Rincones, training supervisor, Creole Petroleum Corp.

Legal Council—David E. Grant, Grant, Exelsen & Rorer.

Managing Director—W. T. Rogers, safety consultant, Ebasco Services Inc.

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## New Firedoor Bars Flames



Two doors were subjected to the punishment shown at the left. After a test of one hour the ordinary panel door was completely burned through while the door at the right with fire-resistant core was still cool enough to touch.

USE of a new chemical compound as a core in firedoors has established a new high in safety standards by cutting down the three major causes of death and injury in fires. It halts the spread of flames, is a barrier against penetration of smoke and radiation of intense heat—dangers that fire fighters regard as the most frequent causes of deaths.

In tests conducted by the Underwriters' Laboratories, Inc., of Chicago, the material, known in the trade as Kaylo hydrous calcium silicate, was used as a core in wood and metal firedoors that performed beyond the most optimistic expectations of the designing engineers.

The test conducted by the laboratories put the doors through extreme punishment from fire and

water. They were successfully exposed to open flames ranging from 1000° F. to 1700° F. The amount of radiated heat on the unexposed side of the door was measured. The tests also sought to determine the amount of hot gases and smoke that seeped past the edges of the door and then subjected the door to a 30-pound water pressure hose test for one minute after the 60 minutes of fire.

Results of the tests on the wood-faced door were as follows:

Time in Minutes	Fire Side Temperature	Temperature on Unexposed Side, 12" from Door
5	1000° F.	77° F.
30	1550° F.	98° F.
55	1680° F.	109° F.

No passage of flame, smoke, or hot gases in significant amount around, or from the door assemblies occurred during the one-hour fire exposure.

The hydrous calcium silicate core developed and manufactured by the Kaylo division of Owens-Illinois Glass Company is an inorganic chemical compound of lime and sand. Although the same

raw materials are used in the manufacture of glass, the core material is not a glass. It is white in color, highly fire-resistant, lighter than wood, an excellent thermal insulator, and stronger than the common materials used for insulation.

The wood-faced firedoor is made by fastening double sheets of veneering to each side of the mineral core with waterproof glue. The sheets are applied with their grains running in opposite directions for added strength. All four edges of the door are fitted with strips of solid hardwood which has been treated with Protexol Class A fireproofing agent. The door can be fitted with standard Underwriters' approved hardware. Underwriters specify that the firedoor must be used with approved frames. The natural wood finish makes it suitable for any surroundings. A standard wood-faced door, 3 feet, 4 inches by 7 feet, weighs only about 90 pounds.

Metal-faced firedoors are made by fastening a metal "skin" to the core with a waterproof glue applied under hydraulic pressure to insure a smooth, flat surface. The doors are steel reinforced where hinges and escutcheons are attached. The rigidity of the lightweight core material imparts an extra strength to the steel case giving it greater dimensional stability and makes it lighter than hollow metal doors. In the hollow door heavier steel reinforcements are required. The Kaylo core door saves steel and weighs about 114 pounds compared to approximately 140 pounds for a typical hollow metal door of the same dimensions.

In tests on the metal-faced doors using the Kaylo core, the exposed surface withstood 1850° F. After one hour and a half the unexposed side registered only 300° F. 12 inches from the door. This means that with core material a metal door transmits 900° lower temperature radiant heat than normally expected from this type of door. Both wood and metal-faced doors are Underwriters' approved for class "B" and "C" openings.

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*Catalogs are available on request to Macwhyte Company or authorized distributor.*

1016 SW





# Small Businesses and Associations

By A. M. BALTZER

Director, Small Business and  
Associations Program, NSC

## Now We're Rolling

Those of us who've attended National Safety Congresses and regional conferences during the past 15 years or so can remember hearing many talks about the sad plight of small business. What statistics we had pointed to the unfavorable accident experience of these plants as compared to the large companies of, say, 500 or more employees, and the air was filled with wise advice from both experienced and inexperienced "authorities."

It seemed logical that a small company, with no elaborate safety program, no fancy cost accounting system, and not even a part-time safety engineer would have proportionately more accidents. The statistics bore this out and the safety men who got into these plants, principally the insurance engineers, corroborated the testimony. They give a variety of reasons for the poor showing of smaller companies—"We don't have many accidents," "we can't afford a safety program," "you insurance engineers are supposed to prevent our accidents," and "we haven't time to do any more than we're doing." In short, responses range from lack of awareness of the problem to positive opposition.

The National Safety Council, insurance companies, and other organizations prepared special technical and educational materials for small companies, scaling the material down for the non-safety man. In addition to the special materials, there was a tremendous backlog of good gen-

eral material which was useful to companies of all sizes.

Perhaps we, as professionals, were too enthusiastic or just too naive, but the sad fact remained that the small company executives did not overwhelm us with requests for help. On the other hand, there were a few indications that small plant managers were not necessarily calloused about the welfare of their employees or indifferent to the benefits of accident prevention. There did seem to be a chance to sell them if they could be reached.

The Council's new program for reducing accidents in small business is aimed at overcoming the problem of reaching and selling small business. We are not depending on any mass promotional mailings and we're not depending on any door-to-door salesmen. Rather, we're working through organizations that have promotional and distributional networks reaching small business. Trade associations, manufacturing associations, chambers of commerce, insurance companies, and local safety councils are doing the work; we're merely co-ordinating some of the effort, advising them and taking over some of the mechanical details.

Our objective is simple—to reduce accidents in the small companies. Membership solicitation is definitely secondary, although we would undoubtedly find an application blank for a prospect to sign if he seemed genuinely interested in using our services! Our Association Membership (only \$35) and our special Group Service Membership for Associations

now reaches over 200 industrial associations, giving them a much needed information and consultation service.

## Regional Conferences Aid Small Business

Early this year letters were sent to 30 local and regional conferences and to 17 Governor's Conferences suggesting that the subject of "Safety in Small Business" be given special attention, either by making it the theme of the entire conference or by setting up special meetings for small business managers. It is encouraging to note that several conferences, which heretofore did not feature small business, accepted this suggestion and asked for help in setting up meetings.

At the *Massachusetts Safety Conference*, Boston, March 17 and 18, H. F. Reinhard, Chairman of our Small Business Committee and Secretary of the International Acetylene Association, addressed approximately 125 persons. With a series of illustrated charts he described how both associations and companies made safety pay. He brought out pertinent facts of the report of the Committee of Industrial Safety and Health as adopted by the 18th National Conference on Labor Legislation.

The *Evansville Employers and Manufacturers Association* is sponsoring the newly organized Evansville Industrial Safety Council, thereby giving it the support of top executives. I attended their "kick-off" dinner meeting March 25 and was gratified to learn that they will devote a definite amount of time to building up their membership among the smaller companies. Their local consultation service and library will also be a valuable service for their small members.

The *Michigan Safety Conference*, with our help, set up a special session, "Small Business." Sam McCutcheon of Dow Chemical Company and a member of our Small Business Committee, and Charles Zeskey of T. H. Mastin Company assisted me in presenting

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# Wallace B. Phillips Dies

SAFETY LOST ONE of its most zealous, internationally-known leaders on April 14, when Wallace B. Phillips, a leading industrialist in America and England, died in Roosevelt Hospital in his native New York City after a long illness. He was 66 years old.

Mr. Phillips was president of the Pyrene Manufacturing Co., Newark, N. J., and founder, chairman and managing director of The Pyrene Co. Ltd., London, England, and was an officer or director in a dozen other firms, mainly in England and France. He was a director of the National Safety Council, and had been a frequent speaker at National Safety Congresses and other safety gatherings in this country and in Europe.

He was a founder of the London Safety First Council and a former chairman of the executive committee of the Royal Society for the Prevention of Accidents. Shortly before his final return to his native America, a little more than a year ago, he was honored for his many contributions to industry, to safety and to Anglo-American relations when King George VI conferred upon him the honorary rank of Commander of the Order of the British Empire. For outstanding services to the Allies in two wars, he held the King's Medal "for services in the cause of freedom."

It would require an extensive catalog to enumerate Mr. Phillips' many contributions to the cause of organized safety, since he reflected a deep devotion to the principles of accident prevention throughout his career.

On his mother's side a direct descendant of Peter Stuyvesant, Wallace Phillips represented the tenth Phillips generation born on Manhattan Island. He was educated privately abroad and began his industrial career in 1912 when he founded The Pyrene Company, Ltd., later establishing other com-



Wallace B. Phillips

panies in England, France and Belgium. Among his many connections at the time of his death, were those of director of the Avon India Rubber Co., Ltd., London, and president of the Establishments Phillips & Pain, Paris.

Always retaining his American citizenship, Mr. Phillips was called upon during World War I to serve as Chief of Circulation of Military Intelligence with the American Expeditionary Forces in France from 1917 to 1919. In World War II he was special assistant to the director of Naval Intelligence in Washington in 1940 and 1941, and was director of special information services of the Office of Strategic Services in Washington until 1943.

He was a member of the American Red Cross committee set up in London in World War II to provide medical supplies for the British Red Cross. He was the leading founder and became first director-general of American Ambulance-Great Britain, which bought and operated 350 ambulances.

He was president of the American Chamber of Commerce in London from 1943 to 1951, and treasurer of the International

Chamber of Commerce since 1944. He also was president of the American Society of London, and was a member of numerous clubs in New York, Washington, London and Paris. He was a trustee of the American Museum of Safety and a director of the National Industrial Conference Board.

Mr. Phillips returned to New York as president of Pyrene Manufacturing Co., and made his home in the Ritz Tower, 465 Fifth Avenue, in February, 1951.

He is survived by his widow, Mrs. Ann Lewis Phillips.

## Fibrous Materials Can Ignite by Self-Heating

RECENT investigations by the fire protection laboratory of the National Bureau of Standards have provided conclusive proof that closely packed fibrous materials can ignite by self-heating. NBS tests show that these materials in quantity, after standing for some time, may develop an internal temperature higher than the surrounding or ambient temperature. The extent of this temperature rise depends upon the material, its density and packing, and upon the ambient temperature and the length of time this state is maintained.

This work thus gives strong evidence that suitable precautionary procedures should be taken in the storage and use of such commodities. For instance, a 12-inch cube of wood fibreboard kept at 147° F develops a peak interior of 148° F; a sample kept at 210° F develops a maximum internal temperature of 230° F; and a sample at 240° F develops a temperature of 305° F. If the size of the specimen is increased, the amount of self-heating is increased.

In general, the effect of self-heating is small. In some special cases, however, serious consequences may result if this effect is overlooked, particularly where materials packed in large stacks are involved. In one case, nine car-

—To page 126



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## THE ACCIDENT BAROMETER

Prepared by the Statistical Division, National Safety Council

### All Accidental Deaths

THE TREND of accidental deaths in January was upward compared to 1951. The fatality toll was approximately 7,900, or 1 per cent more than the total of 7,800 for January a year ago. Increases in deaths from home and public non-motor-vehicle accidents were nearly offset by a decrease in motor-vehicle fatalities. Deaths from occupational accidents numbered about the same as last year.

### Motor-Vehicle Deaths

The motor-vehicle death total was approximately 2,700, or 5 per cent less than the comparable total of 2,850 for January last year. However, compared to 1950, it was an increase of 9 per cent.

Of the 45 states reporting for January, 25 had fewer deaths than last year, 2 had the same number and 18 had more deaths.

The January death rate per 100,000,000 vehicle miles was 6.8, an 11 per cent reduction from the 1951 comparable rate of 7.6.

Reporting cities with populations over 10,000 showed a reduction of 18 per cent from January, 1951. Of the 437 cities reporting, 110 showed decreases, 260 had no change and 67 reported increases over last year.

Regional changes from 1951 in the January death totals were:

North Atlantic	- 11%
South Atlantic	+ 2%
North Central	- 17%
South Central	+ 3%
Mountain	- 8%
Pacific	+ 5%

### Occupational Accidents

There were about 1,500 deaths from occupational accidents in January, the same number as occurred in January a year ago.

The average frequency rate (disabling injuries per million man-

hours) in seventeen sectional accident prevention contests conducted by the National Safety Council was 6.57, a 16 per cent reduction from January, 1951. The frequency rate for community safety council inter-plant contests was 6.76, a decrease of 27 per cent from last year. In these contests the severity rate (days lost per thousand man-hours) was 0.55, an increase of 12 per cent over January last year.

### Public Deaths

The January death total for public non-motor-vehicle accidents was 1,000, an increase of 11 per cent over last year's January total of 900. Increases occurred in deaths from drownings, firearms and transportation accidents. Deaths from burns showed some improvement over last year while fatal falls numbered about the same as in 1951. Decreases were recorded for children under 5 years of age and persons 45 to 64 years old. All other age groups showed some increase with the largest change recorded for persons 25 to 44 years old.

### Home Deaths

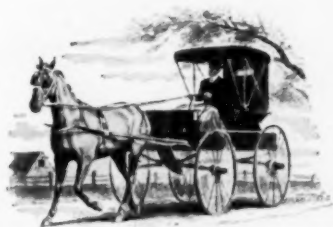
The home accident death toll for January was 2,900, or 4 per cent more than for January last year. Moderate increases occurred in deaths from burns, firearms and unclassified home accidents. There was a moderate reduction in deaths from poisonings and a small reduction in fatal falls. Mechanical suffocation deaths numbered about the same as in 1951. With the exception of a small decrease in deaths of persons 65 years and over other age groups showed increases over last year. Most of this increase occurred in deaths of children 5 to 14 years old and young people 15 to 24 years of age.

*Anxious calls for help, reassuring words  
of comfort—all have been a part of the lives of*

# The Doctor and the Telephone



Dr. Charles E. Birch, White Plains, N. Y., physician, with the telephone that served him for 54 years.



In the suburban community of White Plains, New York, Dr. Charles E. Birch, 88, retired last year after sixty years of practice.

Retired also was the telephone which had served him well for more than half a century. One of the old-fashioned "goosenecks," it had been installed in 1897.

Many times over the years, the telephone company had offered Dr. Birch a more modern instrument, but he preferred to keep this old, familiar telephone on the wall.

Just one telephone — but think how many different lives have been deeply affected by the thousands of messages it carried, quickly and dependably.

And think how much your own telephone service has contributed to safer, easier and more pleasant living for you and your family.

Surely there have been times when no price could have measured its usefulness. Yet its cost is low — just a matter of a few pennies a call.



BELL TELEPHONE SYSTEM



# Industrial Health

Abstracts of current literature on Industrial

Hygiene, Medicine, and Nursing

By F. A. VAN ATTA, Industrial Department, NSC

## Company Medical Care

*Medical Care in a Surface Transportation Company* by Harold Brandalone and Gerald J. Friedman. *The Industrial Medicine and Surgery* 21:174-178 (April, 1952).

THE MEDICAL DEPARTMENT of the Third Avenue Transit System of New York was reorganized in 1947 and instituted a program of medical service to improve the health of the employees and to reduce the accident rate in the Company's operations. After setting up proper pre-employment medical examinations and instituting high standards for selection of bus operators, the Medical Department set up a clinic which remains open on all shifts. This clinic has both internists and surgeons in attendance every day and registered nurses throughout the day. The clinic services are made available to the patient's private physician for any consultation service or laboratory work required.

Every medical absence of an employee is studied in detail and if he is away from work for five or more days, he is visited at his home by a staff physician. The employee's physician is asked to report on his illness if he has one. If not the staff physician gives him the necessary care and makes a report.

In New York State since July of 1950 disability forms must be filled out by the attending physician to obtain benefits under the Disability Benefit Law. These reports help in following the patient's physical status. All of these sources of information are used to the fullest extent.

The Medical and Safety Departments cooperate in the study of accidents. Regular safety discus-

sions are held for all drivers and safe driving awards are provided as incentives. Any driver involved in a major accident or in repeated minor accidents is sent to the Medical Department for complete medical studies including studies of the operator's history, social life, home environment, illnesses and domestic problems if necessary.

As a result of these various practices the number of accidents in gross has been reduced from about 6,500 annually in 1946 to about 3,700 annually in 1950. In the period between the first half of 1947 and the first half of 1951 the rate of traffic accidents was reduced from 14.55 to 8.02 per 100,000 miles of bus operation.

Operators who have three or more preventable accidents in a six months' period are classified as habitual accident repeaters. Of 211 repeaters in 1948, 55 were sent to the Medical Department for study and treatment and to the Safety Department for re-training. In the six months' period prior to this treatment these 55 operators were involved in 171 preventable accidents. In the six months immediately after the training they were involved in only 28 preventable accidents. The other 156 repeaters had 585 accidents during the six months before the study and 451 in the six months immediately after the study.

The improved medical program has also considerably decreased the incidence of both non-occupational illnesses and of compensation cases. The total number of illnesses was reduced from 2,167 in 1948 to 1,075 in 1950 and the number of compensation cases from 536 in 1948 to 265 in 1950. The Medical Department feels that

the improvement in general health of the employees is a very worthwhile achievement both because of the direct improvement in the attitude and productivity of the individual involved and also because of the indirect improvement in the conditions of other employees in that they are not required to put in excessive overtime and effort to fill in for the absentee.

Since the medical program is directed at the care not only of physical but also of emotion defects in the bus operators, one of the most important measures has been good listening on the part of the physicians. The physicians are expected to listen to the personal, family and social problems of the employees as well as to their medical problems.

The Medical Department has been able to show that it has produced a financial saving of almost \$100,000.00 per year since its reorganization. This was direct savings from decreased absenteeism and from a reduction in compensation costs. It does not include any sums saved in decreased liability claims nor any other indirect costs.

## Industrial Noise Problem

*The Noise Problem in Industry* by Herbert T. Walworth. *The American Industrial Hygiene Association Quarterly* 13:17-22 (March, 1952).

THE INTEREST in the problem of industrial noise among representatives of industry and the medical, industrial hygiene and other professions has been growing very rapidly in recent years. It has been well known, or at least widely accepted, for many years that excessive noises in industry caused loss of hearing among the workers. The problem has not created enough interest in the past to stimulate the necessary research for solving the noise problem. There is now a great deal of urgency about solving it immediately but the necessary facts are not now available.

While it might seem off-hand that the problem can be solved by the workers wearing ear defenders,

—To page 110



# Sure Steps to PROTECTION!



An overheated engine driven generator caused this \$774,000 fire at the Hurd Millwork Corporation, Medford, Wisconsin.



## *Air-Flo* VL EXTINGUISHER

This serious industrial fire, like most others, started small. Quick action with a one gallon Buffalo Air-Flo Vaporizing Liquid Extinguisher can stop a fire like this when it starts. Instant action against dangerous flammable liquid and electrical fires is easy with a Buffalo Air-Flo. Big, dual air pumps instantly produce internal air pressure which forces a continuous, steady stream of flame-killing Vaporizing Liquid up to 30 feet. You are always sure of dependable performance, too, because Buffalo's exclusive built-in Dryex absorbs all traces of internal corrosion-causing moisture.

Buffalo manufactures a complete extinguisher line for positive protection from every fire hazard. Order Buffalo protection now! Consult your Classified Telephone Directory or write today for your nearest Buffalo Distributor.

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# Green Cross News . . .

Activities of Local Safety Councils and Chapters

Compiled by **TOM A. BURKE**

Director of Local Safety Programs, Field Organization, NSC

## Governor Appoints Rohweder

By appointment of Governor C. Elmer Anderson of Minnesota, A. V. Rohweder again has been named Governor's Safety Consultant. He will direct and coordinate the safety activities of state officials, nine state departments, the University of Minnesota, Civil Service department and the state Liquor Control. The appointment was made January 8. The program will be worked out in co-operation with the Minnesota Safety Council, of which Mr. Rohweder is president. A plan of co-ordination has been adopted which calls for monthly reports of safety activities, accomplishments and plans, to be made to Mr. Rohweder each month. Mr. Rohweder, who is superintendent of safety and welfare for the Duluth, Missabe & Iron Range Railway Company, Duluth, is a member of the National Safety Council Board of Directors and has been president of the Minnesota State Council since 1938. The Council conducts intensive state-wide programs in all fields of safety activity including a farm program, and works closely with a great many local safety councils in the state.

## Omaha's "\$5 Experiment"

The Omaha Safety Council recently decided not to renew any of its \$1 memberships. Instead the Council's executive committee established a \$5 "patron" membership for individuals. Returns from a mail appeal for the new membership brought in more than \$500 within a few days. The fine response is pretty good evidence that it is just as easy to sell \$5 as \$1.00 memberships in a local safety council. W. O. Swanson, one of

Omaha's best known business and civic leaders, is chairman of the 1952 membership drive and the \$5 membership project was the first step in an extensive finance procurement drive which Mr. Swanson and his committee will direct during the next few months. The \$5 appeal consists of a one page letter and a six page fact pamphlet

## Reynolds Du Pont



The new president of the Delaware Safety Council has been with the Du Pont organization since 1941, first as an engineer in the Standards division, Pigments department, then as shift foreman, assistant service superintendent and later as area supervisor, Edge Moor Plant, Pigments department. He served in the Navy 3½ years in the Atlantic and Pacific theaters in World War II and was wounded aboard a mine sweeper in 1945. He is a graduate of Lawrence Vaille School and Massachusetts Institute of Technology, where he majored in mechanical engineering. He is the son of Lamont Du Pont, is married, and has three children. He has been on the board of directors of the Delaware Council for the past four years and became its president in early January, 1952.

telling the story of safety accomplishments in Omaha since the organization of the Council in 1935.

## Western Safety Conference

The Western Safety Conference which was organized 17 years ago to enable West Coast safety enthusiasts to meet and discuss mutual problems in combating the accident menace, will meet this year in Long Beach, June 16-17-18. Carl E. Johnson of Los Angeles, president of this year's Conference, says that 11 Western states will be well represented in the large attendance anticipated. There will be quite a registration from Western Canadian industries and also safety engineers and public officials will attend from Alaska and far off Hawaii. The Wilton Hotel will be headquarters while meetings and exhibitions are scheduled for Long Beach auditorium.

## Editorial "Face-Lifting"

An editorial face-lifting job has just been completed by the Greater Los Angeles Chapter, NSC. An attractive four-page publication *Safety Newsletter* with new format, type and heads and an attractive masthead is the healthy looking successor to the Council's former monthly publication. The first issue of the attractive periodical appeared in March. Dave Showalter, assistant manager in charge of public relations, is the "architect" of the new publication as well as its editor.

## Novel Slogan Twist

Patricia Dailey, a fifth grade student at Elmira (N.Y.) Public School No. 9, recently won first

—To page 72

# ONE BAD FALL

may cost you more than a lifetime's supply of  
LEGGE SAFETY FLOOR POLISHES



## HERE'S A LITTLE ARITHMETIC ANYONE CAN UNDERSTAND:

Buying inferior polishes may save you pennies today—but cost you *many thousands of dollars* tomorrow.

- Because of damage suits resulting from slip-fall accidents on your slippery floors.
- Because of lost production time due to key personnel being hospitalized with broken bones.
- Because the use of inferior material means you have to use a lot *more* of it. (Cheap polishes need constant renewing.)
- Because you pay the *hidden* cost for so much more *labor* than your maintenance requires.

## READ WHAT THIS TORONTO FIRM\* REPORTS:

"Frequent slip-fall accidents, with claims averaging \$1,000 each caused us to try your Leco-S3. In the 18 months we have been using it, not one slip-accident or claim has been reported.

"Leco-S3 costs us about \$600 a year. Formerly, we paid \$1200 to \$1300 yearly for wax. Maintenance time has been reduced by 45%, since an application of Leco-S3 lasts considerably longer than wax and requires less time to lay on the floor."

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\*Name on request.

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101 Park Ave., New York 17, N. Y.

Gentlemen:

( ) I'd like to know what Legge Safety Products can do for my floors. I have approximately \_\_\_\_\_ sq. ft. of

(composition)

( ) Send me your FREE booklet, "Mr. Higby Learned about Floor Safety"

Name \_\_\_\_\_

Firm \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

# The Safety Library

Books, Pamphlets and Periodicals of Interest to Safety Men

## BOOKS AND PAMPHLETS

### Construction

**100 Ways to Save a Buck.** By John A. Volpe. Published by Kemper Insurance, Mutual Insurance Bldg., Chicago 40, Ill. 1952. 30 p. Free.

### Fire Protection

**Explosive Characteristics of Titanium, 200 Conium, Thorium, Uranium and Their Hydrides.** By Irving Hartman and others. Published by U. S. Bureau of Mines. 1951. 16 p. Available from the Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free. (Report of Investigation 4835.)

**The Supermarket—Hazards and Protection.** Published by Board of Fire Underwriters of the Pacific and others. 215 Battery St., San Francisco 11, Calif. 1952. 15 p. Free.

### Mines

**Federal Coal-Mine Inspection—A Decade of Progress.** Annual Report for Fiscal Year 1951 and 10-year Review. By J. J. Forbes and others. Published by U. S. Bureau of Mines. 1951. 45 p. Available from the Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free. (Information Circular 7625.)

### Paper Industry

**Injuries and Accidents in the Manufacture of Pulp and Paper.** Published by U. S. Bureau of Labor Statistics. 1951. 58 p. For sale by the Superintendent of Documents, Washington 25, D. C. Price 30c. (Bulletin No. 1036.)

### Static Electricity

**Static Electricity in Hospital Operation Suites: Direct and Related Hazards and Pertinent Remedies.** By P. G. Guest and others. Published by U. S. Bureau of Mines. 1952. 62 p. Available from the Bureau, Publications Dis-

tribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free. (Report of Investigation 4833.)

**Static Electricity in the Paper Handling.** By Research and Engineering Council of the Graphic Arts Industry. 1951. 17 p. For sale by Printing Industry of America, 719—15th St., N. W., Washington, D. C. Price \$5.00. (Paper Series No. 1.)

### Welding

**Safe Practices for Welding and Cutting Containers That Have Held Combustibles.** Published by American Welding Society, 33 West 39th St., New York 18, N. Y. 1952. 12 p. Price 50c. (A6.0-52.)

## MAGAZINE ARTICLES

### Dust

**Practical Aspects of Industrial Dust Suppression.** By W. B. Lowrie. (In British Journal of Industrial Safety, Winter 1951, p. 75.)

### Elevators

**You Can Cut Elevator Accidents.** (In Power March, 1952, p. 122.)

### Eyes

**How Your Small Plant Can Make Vision Testing Work.** (In Factory Management and Maintenance, March, 1952, p. 116.)

### Fire Prevention

**Fire Extinguishing Media for Fires Involving Dissolved Acetylene Cylinders.** (In British Journal of Industrial Safety, Winter 1951, p. 87.)

### Mines

**Fighting Fire with Flood.** (In Coal Age, March 1952, p. 96.)

**Mining Industry Continues with Lower Fatal-Injury Rates.** By S. H. Ash. (In Mining Engineering March 1952, p. 257.)

**Safer Mines—Can Congress Do the Job?** (In Coal Age March 1952, p. 70-79.)

**Safety Stressed in Southwestern Copper Pits.** (In Mining Engineering March 1952, p. 262.)

### Noise

**Conference on Problems of**

## the LIGHTER SIDE

NATIONAL SAFETY COUNCIL



**Noise in Industry.** (In A. M. A. Archives of Industrial Hygiene and Occupational Medicine Feb. 1952.)

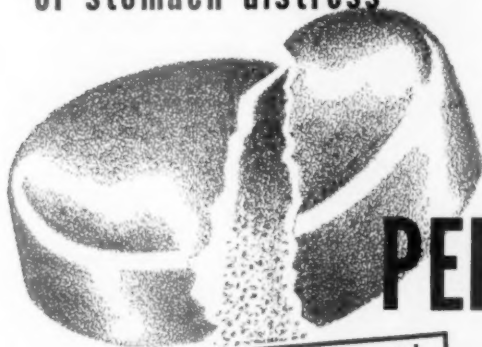
—To page 86

● Sweating in hot weather can cause a tired, listless feeling and make every move an effort. These symptoms are caused by the loss of salt from the system. Salt is lost amazingly fast through perspiration and research has shown that "lassitude" and "loss of will to work" can occur when as

little as 10% of the salt in the system is lost. As vigor and vitality go down, the accident rate can go up. Prompt replacement of this salt can quickly restore vigor and vitality and the most satisfactory way of replacing salt in the system is by taking PEP-UP Impregnated Salt Tablets. These tablets are subjected to an exclusive patented process which forms a complete coating around each crystal of salt in each tablet — when swallowed the tablet dissolves slowly, thus avoiding the nausea and digestive disorders usually noticed with the taking of plain salt.

# 60-second action

without fear of nausea  
or stomach distress



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individually  
coated

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release salt immediately!

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PEP-UP Impregnated Salt Tablets are packaged in sanitary factory-sealed dispensers at no extra cost. THROW AWAY DISPENSER WHEN EMPTY, HANG UP A NEW ONE. Save the expense of purchasing, servicing and replacing individual dispensers.



Write for literature and prices.

- Controlled (slow) dissolving eliminates nausea.
- Starts dissolving immediately.
- Dissolves completely in about 100 minutes.
- No delay in getting salt into system.
- Withstands high temperatures and rough handling.
- Can be stored for long periods without deteriorating.
- Will not absorb moisture from air and clog dispensers.

The Formula used for producing Impregnated Salt Tablets was developed at the United States Naval Medical Research Institute. The tablets meet government specifications for Type III, Class C impregnated salt tablets (specifications set forth in Federal Standard Stock Catalog No. 55-S-31d, Section IV (part 3), dated September 11, 1951).

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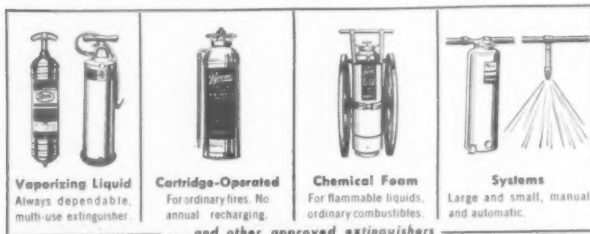
**CAREFULNESS ISN'T ENOUGH  
YOU NEED PYRENE, TOO!**



## There's a Pyrene for every fire hazard

The watchword of fire prevention is *Be Careful*. But fire may come—any time. When it does, Pyrene\* can make the difference between a harmless scare and a gutted business. Whatever your fire hazard, there's a Pyrene to cope with it—for Pyrene makes everything from hand extinguishers to complete automatic fire-fighting systems.

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**Vaporizing Liquid**  
Always dependable,  
multi-use extinguisher.

**Cartridge-Operated**  
For ordinary fires. No  
annual recharging.

**Chemical Foam**  
For flammable liquids,  
ordinary combustibles.

**Systems**  
Large and small, manual  
and automatic.

... and other approved extinguishers

**PYRENE MANUFACTURING COMPANY**  
**583 Belmont Avenue Newark 8, New Jersey**  
Affiliated with C-O-Two Fire Equipment Co.

## COMING EVENTS

*In the Field of Safety*

### May 4-6, Asheville, N. C.

Twenty-second Annual North Carolina State-wide Industrial Safety Conference. (George Vanderbilt Hotel). H. S. Baucom, safety director, North Carolina Industrial Commission, Raleigh, N. C.

### May 6-8, Chicago

29th Annual Midwest Safety Show. (Congress Hotel). Joseph F. Stech, Manager, Greater Chicago Safety Council, Suite 806, 10 N. Clark St., Chicago 2.

### May 6, Easton, Pa.

Twenty-fifth Annual Eastern Pennsylvania Safety Conference. (Hotel Easton). Harry C. Woods, executive secretary, Lehigh Valley Safety Council, 602 E. Third St., Bethlehem, Pa.

### May 8-9, Baltimore, Md.

Statewide Safety-Health Conference and Exhibit. (Lord Baltimore Hotel). Joseph A. Haller, director of safety, State Industrial Accident Commission, Equitable Bldg., Baltimore 2, Md.

### May 15-17, Richmond, Va.

Eighteenth Annual Virginia State-Wide Safety Conference. (Jefferson Hotel). William M. Meyers, executive secretary, Richmond Safety Council, 803½ E. Main St., Richmond 19, Va.

### May 22-23, Duluth, Minn.

Twenty-eighth Annual Conference, Lake Superior Mines Safety Council. (Hotel Duluth). John A. Johnson, chief, Accident Prevention and Health Division, Region V, U. S. Bureau of Mines, 18 Federal Bldg., Duluth, Minn.

### May 27-29, St. Louis, Mo.

Central States Safety Conference. (Hotel Jefferson). Reyburn Hoffman, secretary-manager, Safety Council of Greater St. Louis, Room 820, 511 Locust St., St. Louis 1, Mo.

### June 2-4, Washington, D. C.

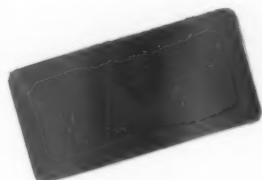
President's Conference on Industrial Safety. (Department of Labor Bldg.) William L. Connolly, chairman, Coordinating Committee, Bureau of Labor Standards, U. S. Department of Labor, Washington 25, D. C.

### June 16-18, Long Beach, Calif.

Western Safety Conference (Wilton Hotel). Joseph M. Kaplan, secretary-manager, Greater Los Angeles Chapter, National Safety Council, Suite 730, 610 South Main St., Los Angeles 14, Calif.

—To page 60





**Save with Safety !**

**Order these  
quality lenses direct !**



## **INDUSTRIAL LENSES**

Cut your costs by ordering these quality lenses *direct* from one of America's most experienced lens makers. Penoptic\* Industrial Lenses exceed all Federal Specifications. You can depend on their quality . . . and *save*!

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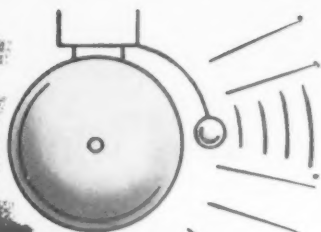
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"FIRE-DRILL"  
NEEDED  
with THIS  
EXTINGUISHER



One glance tells you just how the Randolph operates—no instructions, no explanations necessary! That's why *anybody* can get a Randolph into action fast! No valves to turn, no nozzles to adjust; just point and press your thumb and Randolph's cloud of snowy CO<sub>2</sub> kills fire instantly!

Non-damaging Randolph CO<sub>2</sub> evaporates without a trace, is non-toxic, won't conduct electricity, deteriorate or freeze. And all Randolph Models are Underwriters' Approved.

#### A COMPLETE LINE OF EXTINGUISHERS AND AUTOMATIC SYSTEMS

Learn how Randolph gives your plant panic-proof, split-second protection against flammable liquid, electrical and other hard-to-handle fires! Write Randolph Laboratories, Inc., 2 E. Kinzie St., Chicago 11, Illinois.



## Coming Events

—From page 58

### Sept. 11-12, York Harbor, Me.

Twenty-fifth Annual Maine State Safety Conference. (Marshall House). A. F. Minchin, secretary, Industrial Safety Division, Department of Labor and Industry, Augusta, Me.

### Sept. 16-18, Cleveland, Ohio

Fourteenth Annual Ohio State Safety Conference. (Hotel Carter). Carl L. Smith, secretary-treasurer, Ohio State Safety Council, 2073 E. 9th St., Cleveland 15, Ohio.

### Oct. 20-24, Chicago

Fortieth National Safety Congress and Exposition. (Conrad Hilton Hotel). R. L. Forney, general secretary, National Safety Council, 425 N. Michigan Ave., Chicago 11.

### Nov. 12-13, Cincinnati, Ohio

Second Annual Greater Cincinnati Safety Council. (Sheraton-Gibson Hotel). Kenneth R. Miller, executive director, Greater Cincinnati Safety Council, 1203 Federal Reserve Bank Bldg., Fourth and Race Sts., Cincinnati, Ohio.

## Engineering Can Cut Insurance Costs

FIRE AND ACCIDENT insurance costs could be lowered through application of engineering principles, said John J. Ahern, speaking before a recent Insurance Buyers' conference in Rockford, Ill.

Prof. Ahern is director of the department of fire protection and safety engineering at Illinois Institute of Technology.

"Modern science has made great strides in automatic methods of fire protection and extinguishment," he said. Unfortunately these improvements are not being utilized properly now when we cannot afford to lose either time or materials due to fire.

Poor conditions in occupancy and construction, lack of sprinkler systems and adequate local fire departments, and probability of fire spreading from building to building are always reflected in insurance rates, Ahern said.

"Unsafe physical features are always the result of poor engineering, and the sooner we face that fact the sooner we will be able to control accidents," he said. A careful survey of past accidents should be made to determine the unsafe physical features and practices," he said.



# "THERE SHE BLOWS"

From one end of the oil country to the other, McKay Chain is at work helping hit pay sands. But then—you'll find McKay Chain everywhere doing the useful jobs of lifting, hauling, rigging, tying, spinning and other material and power transfer applications.

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McKAY CHAIN FOR EVERY USE . . .  
no job is too big, none too small!

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**McKAY—A GOOD NAME FOR GOOD CHAIN—SINCE 1881**



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# FOR DISTINGUISHED SERVICE

## National Safety Council Awards for Outstanding Records

**THREE** types of awards for outstanding performance in accident prevention are awarded by National Safety Council. These awards are made automatically on the basis of reports submitted to the Council, according to the plan recently adopted by the Industrial Conference and the Board of Directors.

The three types of awards are: 1. The AWARD OF HONOR, the highest award, replaces the Distinguished Service Award. It goes to companies which complete 3,000,000 man-hours without a disabling injury, also to those which meet rigorous statistical standards for safety work, although a no-accident record is not maintained.

2. The AWARD OF MERIT has similar but less severe require-

ments. The number of accident-free man-hours needed to qualify is between 1,000,000 and 3,000,000 and the standards for non-perfect records are proportionately less exacting.

3. The CERTIFICATE OF COMMENDATION is given only for no-accident records for a period covering one or more full calendar years, and involving exposure of 200,000 to 1,000,000 man-hours.

Awards are made automatically for records established within a calendar year, or may be made on special application where consecutive months of two years are involved.

Publication of awards under this plan succeeds "The Honor Roll" department formerly published in NATIONAL SAFETY NEWS.

### AWARDS OF HONOR

American Optical Co., Southbridge, Mass., Plants.  
Apex Electric Manufacturing Co., Cleveland Household Appliances.  
Bethlehem Steel Co., Johnstown, Pa., Plant.  
Chapman Valve Manufacturing Co., Indian Orchard, Mass.  
Chicago Bridge & Iron Co., Greenville, Pa., Plant.  
City of Chicago, Dept. of Subways and Superhighways.  
Ford Motor Co., Dearborn, Mich.  
The B. F. Goodrich Co., Akron, Ohio.  
The B. F. Goodrich Co., Port Neches, Tex.  
Edward Hines Lumber Co., Manufacturing Div., Hines, Ore.  
Hughes Tool Co., Houston, Tex.  
International Harvester Co., Waukegan, Wis.  
Lion Oil Co., Chemical Div., Eldorado, Ark.  
The Lord Baltimore Press, Baltimore, Md.  
Marshall Field & Co., Fieldcrest Mills Bleachery, Spray, N. C.  
C. H. Masland & Sons, Carlisle, Pa.  
Oscar Mayer & Co., Madison, Wis.  
Merck & Co., Rahway, N. J.

Morton Salt Co., Hutchinson, Kans., Plant.  
Miller Brewing Co., Milwaukee, Wis.  
National Cash Register Co., Dayton, Ohio.  
Penick & Ford, Ltd., Inc., Cedar Rapids, Ia.  
Commonwealth of Pennsylvania, Dept. of Highways, Harrisburg, Pa.  
National Sugar Refining Co., Pennsylvania Sugar Div., Delaware Refinery.  
Sandia Corp., Sandia Base, Albuquerque, N. M.  
Tennessee Valley Authority, Div. of Construction, Johnsville, Tenn.  
United States Steel Co., Pittsburgh, Pa.  
United States Navy Dept., Boston Naval Shipyard.  
United States Navy Dept., Mare Island Shipyard, Vallejo, Calif.  
United States Navy Dept., Pearl Harbor, T. H., Naval Shipyard.  
United States Rubber Co., Scottsville Plant.  
Victor Chemical Co., West Nashville, Tenn., Plant.  
Visking Corp., Clearing Div., Chicago.  
Wood Mosaic Co., Louisville, Ky.

### AWARDS OF MERIT

The Abney Mills, Brandon Div., Greenville, S. C.  
The Albermarle Paper Manufacturing Co., Richmond, Va.  
Armco Steel Corp., Fabricating Div., Middletown, Ohio.  
Armstrong Rubber Manufacturing Co., Des Moines, Ia.  
Bethlehem Steel Co., Bethlehem Pacific Coast Steel Corp., Los Angeles.  
Bethlehem Steel Co., Bridgeport Quarry.  
Bethlehem Steel Co., Hanover Quarry.  
Bethlehem Steel Co., Pottstown Works.  
Brown Corp., La Tuque, Que.  
Canadian Industries Limited, Windsor Chemical Works.  
J. I. Case Co., Bettendorf, Ia., Works.  
J. I. Case Co., Rock Island, Ill., Works.  
J. B. Clow & Sons, National Cast Iron Pipe Div., Birmingham, Ala.  
Combustion Engineering-Superheater, Inc., East Chicago, Ind., Div.  
The Connor Lumber & Land Co., Wakefield, Mich., Sawmill Operation.  
Container Corp. of America, Southwest Div., Fort Worth, Tex.  
Continental Foundry and Machine Co., East Chicago, Ind.  
Wright Aeronautical Div., Curtiss-Wright Corp., Woodridge, N. J.  
Deltex Rug Co., Oshkosh, Wis.  
City of Detroit, Dept. of Water Supply.  
The Eveready Co., Frederick, Md.  
Fourco Glass Co., Harding Plant, Ft. Smith, Ark.  
Gaylord Container Corp., Milwaukee, Wis.  
General Cigar Co., Inc., Phillipsburg, Pa.  
Gilbert Paper Co., Menaasha, Wis.  
The B. F. Goodrich Co., Du Bois, Pa., Plant.  
The B. F. Goodrich Co., Marietta, Ohio, Plant.  
The B. F. Goodrich Co., Martha Mills, Silvertown, Ga.  
The B. F. Goodrich Co., Tuscaloosa, Ala., Plant.  
Graver Tank and Manufacturing Co., East Chicago, Ind., Plant.  
Great Lakes Steel Corp., Ecorse, Mich.  
Hart & Cooley Manufacturing Co., Holland, Mich.  
International Minerals and Chemical Corp., Florida Phosphate Div., Bartow, Fla.

—To page 64

# Give Two Ejection Problems the Air

## ...and boost production and safety

① End slow, dangerous hand removal of work with a Schrader Air Ejection Set. Install Schrader Air Ejection Sets on your power presses—or any machines with moving parts to actuate a cam or sliding tripper. You'll find production soars—up to 100% ... operator safety is boosted 50%. Replace hand removal with Schrader Air Ejection and watch your presses take a new lease on life.

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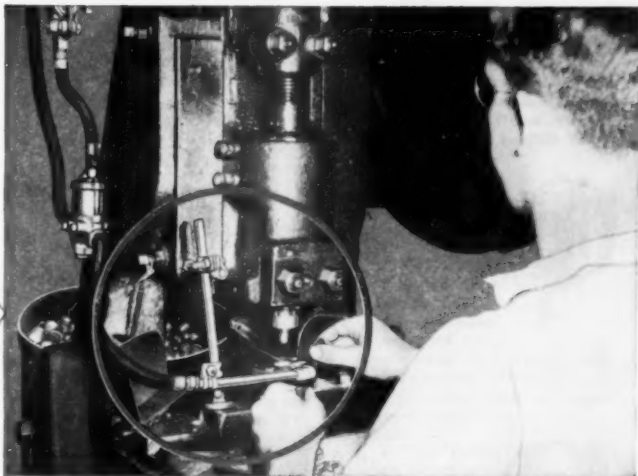
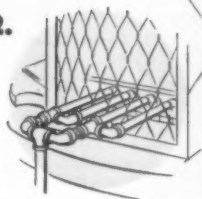
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THERE IS A DOCKSON DISTRIBUTOR NEAR YOU—Let us send you his name and our catalog of Welding and Cutting Equipment.



## Distinguished Service

—From page 62

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Monsanto Chemical Co., Trenton, Mich.

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Hickory Manufacturing Co., Hickory, N. C.

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Marshall Field & Co., Fieldcrest Mills Div., Fieldale, Va.

Monsanto Chemical Co., Carondelet Plant, St. Louis, Mo.

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Quaker Oats Co., Depew, N. Y., Plant.

Quaker Oats Co., Tecumseh, Mich., Plant.

Ralston-Purina Co., Davenport, Ia., Branch.

Ralston-Purina Co., Elevator A, St. Louis, Mo.

Ralston-Purina Co., Sanitation Products—F. S. Plant, St. Louis, Mo.

Revere Copper & Brass, Inc., Canton Div., Baltimore.

Rock River Cotton Co., Janesville, Wis.

F. S. Royster Guano Co., Bessemer, Ala., Plant.

F. S. Royster Guano Co., Charlotte, N. C., Plant.

U. S. Rubber Reclaiming Co., Inc., Cheektowaga, N. Y.

The Sager Glove Corp., Chicago.

Southwest Corrugated Box Co., Sand Springs, Okla.

Stimsonite Plastics, Chicago.

Tennessee Valley Authority, Wautauga Dam, Div. of Construction.

Vitreous Steel Products Co., Napanee, Ind.

## Announce Dates for NSC Training Courses

The Safety Training Institute of the National Safety Council announces registration in the Safety Training Course, "Fundamentals of Industrial Safety," available for: May 19-23, June 9-13, November 10-14 and December 8-12.

Further information may be obtained from National Safety Council.



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UNDER  
WET SHOES**

**DAZZLING SELF-LUSTRE**

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floor dressing that's extra safe all year 'round!



CETOX makes all floors super safe—especially throughout year's 30% inclement weather when the risk of slips and falls is greatest.

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Normally, water underfoot acts as a lubricant. CETOX is extra safe under spilled or tracked in water. You simply won't slip, because

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Self lustre CETOX makes floors dazzling bright. It is a wet mop proof, tough wearing, dirt resisting, protective floor dressing that may readily be removed with the use of a mild detergent. In every way, CETOX is superior. For safety sake . . . put CETOX on your floors.

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## ASKED and ANSWERED

Assistance with problems of accident prevention and industrial health is offered by National Safety Council. All inquiries are answered by mail and a few topics are selected for publication.

### First Aid Kits

**Question:** We have 33 branch offices of our corporation located in the various states.

We have a program of furnishing first aid kits and keeping them properly supplied. In connection with this, we would like to know if there are any rules or regulations in any of the states which require that a first aid kit contain medical supplies.

**Answer:** Many of the states do have regulations which stipulate what shall be in a first aid kit. In some cases the regulations apparently apply only to factories, but in other cases they apply to all industrial establishments. In the state of Washington, for instance, there is a book of "General Safety Standards" in which is set forth a rather extensive list of supplies which shall be kept in first aid kits, and we are informed that these regulations apply to any establishment which comes under the state compensation law. It may be assumed that the same is true in other states.

It is suggested that you ask each of your branch offices to secure copies of the state regulations on this subject and furnish you with the information necessary to enable you to send them the proper first aid kits and maintain them with proper supplies. This would be the most certain way to get the most up to date regulations.

### Washroom Doors

**Question:** We have recently encountered a problem that I thought you might have some information on. We have in our plant solid doors going into the men's and ladies' lounges. A number of employees have pointed out the possibility of accidents, and we are interested in suggestions to

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# Completely stitched with **DACRON** thread

to resist **HYDROCHLORIC, SULPHURIC, AND  
NITRIC ACIDS...CAUSTICS AND BLEACHES**



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● Now you can order famous Thom McAn steel toe, Safety Shoes specially made for the chemical industry...a sturdy plain-toe work oxford, completely stitched with du Pont's chemical-resistant DACRON\* thread. This thread keeps its original strength under the most difficult chemical conditions...helps maintain shoe shape for longer wear. With oil-resistant sole and heel.

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**DUSTFOE #55**  
**RESPIRATOR**  
...Newest of the Safety Stars!

- ★ BREATHING—50% easier!
- ★ FILTER—new "Static-Web"!
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Meet our newest safety star! Dustfoe #55 weighs less than 3 ounces—brings you all-star comfort, performance, protection! Revolutionary "Static-Web" throw-away filter retains dust electrostatically, needs no pre-filter. Filter is 50% narrower to eliminate "blind spots." There's nothing finer on any count!

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remedy the situation. By law, we cannot have a glass porthole in these doors, and yet we are limited by space which prevents us from having "in" and "out" doors.

*Answer:* Your problem with washroom doors is a common one and the only solution we know of that is entirely satisfactory is to put in two doors, which you say you cannot do.

Our experience seems to indicate that there is less danger of people being bumped by the door when they are actually walking toward it with the intention of opening it from the inside than there is when they are standing near it with their attention on something else. Double doors, which are very common, making a short passageway from the washroom proper to the outside door may discourage people from congregating around the door. The inside door can be a  $\frac{3}{4}$  door or have a glass window in it.

Another necessary feature is to have a pneumatic door closing device in good working condition and with fairly heavy tension on it. This makes it impossible for the person opening the door from the outside to slam it open with great force. The doors should always open inward.

These precautions, while they will not keep two people from arriving at the door at the same time, will help prevent injuries.

### Air Brake Switches

*Question:* I am wondering whether or not you have information on hand as to the precautionary measures other companies are taking in the operation of air brake switches.

For example, we have gone to the extreme of cutting the metal handle off and using a wooden handle that fits over the metal handle. In addition we use an insulated stool and rubber gloves.

Our engineering department is now working on the idea of placing an insulated section in the vertical operating rod which would eliminate all the other items mentioned above with the exception of rubber gloves.

*Answer:* This question has been reviewed from time to time by public utility safety and engineering groups.

Most companies require that rubber gloves be worn by persons operating air brake switches, regardless of what other safety measures are taken in the design of the operating mechanism.

There are two schools of thought on means of operator protection.

1. Insulating the operator from ground by means of insulated stools or platforms and/or by means of insulating handles, insulating sections in the rod, etc.

2. Effective grounding so that no dangerous voltage can exist across any part of the operator's body if there should be a flash-over while operating without the use of insulating platforms or rods.

A recent check in the E.E.I. Accident Prevention Committee showed that the trend is away from the first method and toward the second.

It is not sufficient merely to drive a ground rod at the base of the pole, or ground the rod to it, and assume that the second method has been fulfilled. It is necessary to place a grid or metal grating beneath the operator so that he cannot operate the switch from any position where he is not protected by the grid.

If the grid is effectively grounded, and if it is solidly connected to the metal operating rod, the operator is well protected against possible effect of flash-over or breakdown of the switch while operating.

The first method has been used successfully for many years. Some mechanical troubles have been experienced with insulating sections in the rods, and such installations should be designed to be as sturdy and as free from mechanical breakdowns as possible, as well as retaining their insulating qualities. If the installation is on poles, consideration should be given to possible short circuiting of the insulation by a conducting pole.

Since both methods of protection are in use by many companies, and since advocates of both offer arguments in favor of their choice, it would seem that each company must weigh the evidence and make its own choice.



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(H. W. & D. BRAND OF MERBROMIN, DIBROMOXYMERCURIFLUORESCIN-SODIUM)

Do not neglect wounds, however small; even scratches and small cuts may become infected if they are not promptly and properly treated.

'Mercurochrome' (H.W. & D. brand of merbromin, dibromoxymercurifluorescein-sodium) is one of the best antiseptics for first aid use. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association for this purpose.

The 2% aqueous solution is not irritating or toxic in wounds; minor injuries are reported more promptly when 'Mercurochrome' is the routine antiseptic, because treatment is not painful.

'Mercurochrome' solution keeps indefinitely; the color shows where it has been applied.

Physicians have used 'Mercurochrome' for more than 28 years.

Be sure to include 'Mercurochrome' in your first aid supplies.

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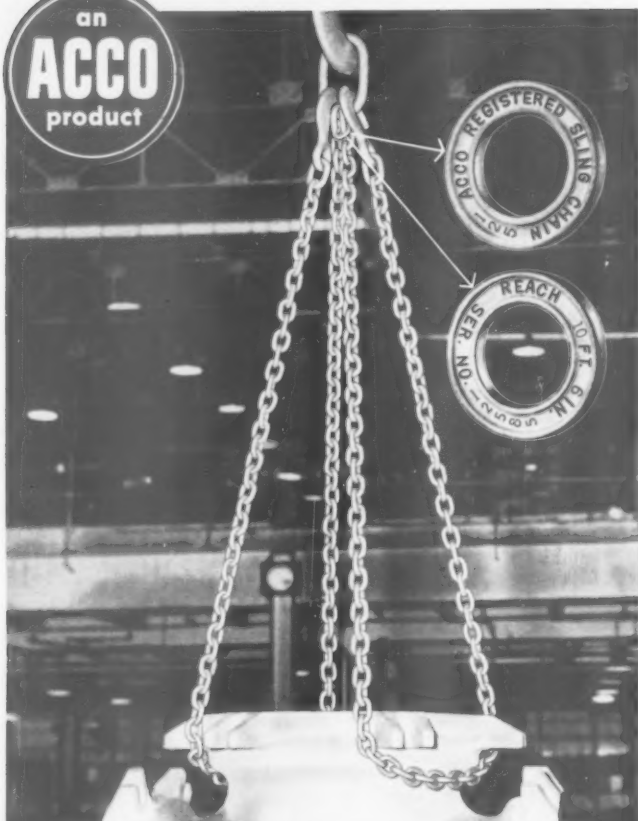
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● Here an ACCO Registered Sling Chain is used in a double basket hitch. It could also be used as a two-legged bridle, or as a double choker. The tough 125 Endweldur ACCALLOY Chain is much lighter in weight and is easy to handle. It has great service life. The permanent identification ring on every ACCO Registered Sling Chain is your sign of safety and guarantee of quality.

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## **Small Businesses and Associations**

—From page 46

a promotional talk on April 8. Of course, the conferences in Chicago, New York and Pittsburgh can always be counted on to feature this important subject of small business. Sessions on the subject are receiving special publicity.

### **Pennsylvania Out in Front**

Whatever the reason, Pennsylvania is unusually active in accident prevention work. We don't just mean the community councils, rather the little publicized but excellent safety work being done by manufacturing associations in Berks County, Montgomery County, and others. These county associations, supported by the Pennsylvania Manufacturers Association, are stirring up plenty of interest in the industrial area surrounding Philadelphia. Best of all, their influence seems to be spreading into other counties and states.

The *Manufacturers Association of Berks County* has been building up its organization since it took out a membership in the Council a year ago. On March 10 they officially launched their program, with a dinner meeting attended by 100 top executives and supervisors—90 per cent of whom came from smaller companies. Even more surprising was the report from Bill Cassidy, Association Manager, that there were probably fewer than six full time safety engineers in their membership of several hundred industrial companies. There certainly seems to be fertile field for putting safety programs into effect here! John Seeton, secretary of the Pennsylvania Manufacturers Association, reported on pending safety legislation, and Frank Cadman, Director of Industrial Relations for the Warner Company, Philadelphia, gave an excellent inspirational talk on developing "the rabbit habit." For those who don't get the connection, Mr. Cadman's talk encouraged those present to act as "multipliers" and enlist others to help spread the "Gospel." I gave the group our story on safety savings and offered the facilities of the National Safety Council and



its membership in behalf of this new campaign.

The *Manufacturers Association of Montgomery County* is a veteran in the safety work. Bob Scott, their safety director, is a very active member of our Small Business Committee and completely overwhelmed me with a story of their far-reaching activities when I visited him January 22. Of course, they are long standing members of the Council, and since the inception of their formal safety program in 1929 they have reduced accidents 66 per cent in the face of rising employment. Bob and his association have kept the average frequency rate of their members a good 10 per cent below that of National Safety Council members for the past five years. Considering that they serve a tremendous variety of industries, and considering the better-than-average standing of their own members, his program certainly seems to be producing results.

#### First Safety Meeting for WTAE

On January 18, the Washington Trade Association Executives joined the National Safety Council in sponsoring a safety meeting at the U. S. Department of Labor Bldg. in Washington. Mr. Reuel W. Elton, general manager of the American Trade Association Executives, and one of the newer members of the Council's Small Business Committee, was instrumental in making the preliminary arrangements and gave us some very fine publicity in his Journal. The presiding officer was John B. Hulse, president of the WTAE. The speakers included William Connolly, of the Division of Labor Standards, Charles Alexander, manager of the Industrial Department, NSC, G. O. Griffin, safety director for Dravo Corporation, Ivan LeGore, manager, Accident Prevention Bureau, Portland Cement Association, and Nixon de Tarnowsky, safety director for the F & M Shaefer Brewing Company of Brooklyn. The Folding Paper Box Association and the U. S. Brewers Foundation cooperated by furnishing excellent charts and three dimensional exhibits describing their safety programs.

While the attendance was dis-



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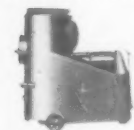
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Put your dust problem up to Hoffman. Our engineers have helped every type of industry to eliminate dust hazards, including abrasive toxic and explosive types. The complete line of Hoffman vacuum cleaning equipment is built for heavy-duty industrial service... higher suction, greater capacity... available with T.E.F.C. Class I and Class II motors for hazardous locations. Write for Free Survey and descriptive bulletins.



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**HoffcoVac 15**  
operates 35-foot  
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**HoffcoVac 30**  
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Also, HoffcoVac 50 and 75 for use with longer hose lengths, on heavier dust accumulations. PLUS Gasoline-Engine Powered Model.

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appointing, we were encouraged by inquiries received later from some of the association executives attending the meeting. We heard many comments commending the several speakers for their fine presentation of facts proving that safety is not only good business, but the associations' business.

### **Even TV Plugs Small Business Safety**

It wasn't a coast-to-coast cable hook up, and it wasn't a star-studded show featuring thousand dollar a minute performers, but it was probably the first time that our small business program was both seen and heard via the air waves. A Chicago TV Station—WBKB—plugged a ten minute gap in the Bill Evans interview show at noontime, March 3, with your reporter and his charts on small company accident problem. For an unrehearsed interview, it went off fairly well, although some of our colleagues, who caught the show in Michigan Avenue refreshment parlors, claimed that the "ghost effect" from competing stations doubled my double chin. We'll be gracious and not retaliate by blaming it on the usual environment and atmosphere of such places.

The connection between small business safety and the housewife viewer had us worried, but Bill Evans led into a discussion which brought out the fact that larger companies had done such a creditable safety job that husbands, brothers and sons were actually much safer on the job than off the job. The increasing importance of small business and defense production was also stressed. The performers certainly won't have income tax worries as a result of this show, but the publicity was worth many times the effort. And that helps all of us!

### **Fertilizer Industry Ripe for Safety**

Within the past few months, the National Fertilizer Association, representing about 300 small companies, and the American Plant Food Council (also fertilizer), representing about 100 companies, have taken out separate Group Service Memberships which bring Council materials to a good per-

centage of managers and employees in the chemical fertilizer industry. This industry is the first to use the blanket type "Group Service Membership" in an all-out attack on accidents in a high hazard industry.

The Chemical Section of the Council has further recognized the interest of fertilizer industries by setting up a new division or committee within the Section. The new group has its own officers and its own News Letter, and it is expected that the new group will blossom into an official Section following several more months of organization.

### **Green Cross News**

—From page 54

place in a school safety slogan contest sponsored by the Chemung County Safety Council, Elmira, N. Y. More than 1500 slogans were submitted by the pupils of the grade schools and the judges unanimously selected Miss Dailey's effort as the best. The winning slogan reads: "Safety First, never Last; Have a Future, not a Past." Slogans were limited to ten words and first prize was \$10.

### **A Record in Records**

Recently the Radio Division of the National Safety Council offered to stations throughout the country a series of ten safety transcriptions made by famous radio commentators. The series was called "The Fight for Life" and participants were Douglas Edwards, Cedric Foster, Pauline Frederick, Taylor Grant, Gabriel Heatter, Bill Henry, George Hicks, Dan Hollenbeck, Lowell Thomas and Clifton Utley. Each talk runs about 1½ minutes. A total of 1033 requests poured in from stations within ten days after the series was submitted. This was the largest response ever received by NSC for a radio feature within a two-week period. Local chapters are cooperating in this big educational project.

### **Council Slidefilm**

A sound slidefilm is being made by the Blackstone Valley Safety Council to tell the picture story of the work, aims and accomplishments of the organization. The



# Bright Eyes *Stay* Bright ...

when **eye**  
**SAVERS** stand guard!

Workers like the exclusive features of Watchmocket's TUC-AWAY goggle. Welded Retrax "telescoping" temples and change-around lens plan give comfortable fit and *sure* eye protection. Get complete details from your safety supplier or write direct.

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**Wears like iron** — takes endless rubbing, scraping, snagging, and still gives full protection.

**100% Waterproof** — made with top quality base fabric saturation-coated first and then coated with 6 coats of Neoprene Latex.\*

**Positively** will not blister, crack or peel. Its longer lasting quality means greater economy.

**Also:** Three-quarter and long coats, aprons, coveralls and many other styles. All clothing made in black or yellow.

\*Sawyer fabrics are coated by  
The Brunene Company, a division of



slides, made from kodachrome color shots, will be used extensively in the Council's annual drive for funds.

### Managers' Training School

A training school for Chapter managers will be held in Chicago in early summer, probably in late June, in accordance with recommendations urged at the meeting of the Conference of Local Safety Organizations last October. Comprehensive details will be announced shortly and the course is planned for a two week period. Chapter managers, staff assistants and prospective managers will be invited to register for the course. The agenda will include every phase of safety council administration, with emphasis on finance, budgetary problems, programs, public relations and general administrative work.

### Philadelphia Conference

The 18th Annual Regional Safety and Fire Conference, sponsored by the Philadelphia Safety Council, drew a large attendance on March 4-5 at the Bellevue Stratford Hotel in that city. There were 22 participating agencies which contributed speakers on subjects vital to safe and efficient manufacturing operations, fire prevention and control, industrial health and hygiene, human factors in safety and public safety as it relates to traffic and home and school safety education. Sessions on "Safety and Labor Relations" and "Safety in Management" were highlighted as programs of particular interest. Dr. Allen A. Stockdale of the National Association of Manufacturers was the speaker at the opening day luncheon. According to Manager Walter Matthews, the large attendance, a strong program and fine interest combined in making it an outstanding conference.

### An Attention-Getter

The Louisville Safety Council, with a flare for novel presentation, recently sent out a mail appeal with a puzzling first page titled "268—1951." The "268" represented the number of accidental deaths in Louisville in 1951, which incidentally was a substantial reduction from 1950. The attractive pamphlet details highlights of 1951

activity accomplishment. An impressive list of 250 members and 125 volunteer workers on nine Council committees is also a sales point that was not overlooked by Manager Estel Hack.

### Breakage

—From page 31

physical advantages. Built just over a year ago, it has some decent conveyor equipment. It has good lighting and good flooring. There are ramps which were placed with some relationship to present-day flow of stock, not somebody's hunch a dozen years ago about where ramps might be useful.

But there is more than that. The truckers are sharp and fast, but they hit their brakes at intersections, and the piling is solid. I asked why.

Leonard looked at me, then at Joe, then he gave me a sour grin, saying, "The dumb Polack here, ask him. I cussed him seven ways to Christmas the first six months we were in here. I'd say, 'Joe, get the lead out,' and he'd yell at his guys like he meant it, and then, when I turned my back, the so-and-so would be out on the floor stopping guys when they were hurrying rush orders. And he'd be ordering repiling when we were late with shipments, and the front office was on my tail, and I was on his. He's a stubborn guy, and I think maybe you're to blame for making him cocky." Leonard's grin got less sour. "But somehow, he gets the stuff out, and somehow nowadays we don't have to stop many trucks or do much repiling."

Joe laughed like the pleased little boy he really is under his bristling stubble, and the laugh was infectious then, as it was to me when I first met Joe stirring up trouble in the warehouse in December of 1947. He said, "Leonard's a smart guy, safety man. I tol' you when he made me a straw boss, I'd run the darnedest safety program you ever saw, an' you tol' me to go slow because all Leonard wanted was production. So I went slow on safety, all right, but I moved the stuff, an' he was saddled with a couple of other straw bosses who didn't know how to handle the guys an'

# 41%

## OF INDUSTRIAL WORKERS ARE VISUALLY UNQUALIFIED FOR THEIR JOBS

The record of visual performance tests of more than 5,000,000 individuals, in 4,000 job categories, reveals that, regularly, four of every ten industrial workers are visually unqualified for satisfactory performance on their jobs. It also shows just the degree to which these are the workers who are responsible for high costs . . . in accident rates . . . in waste and rejects . . . in labor turnover . . . in training time . . . in absenteeism.

### YOU CAN IDENTIFY THE "VISUALLY UNQUALIFIED" IN YOUR PLANT

The Bausch & Lomb Occupational Vision Service is a scientific method for determining visual standards for every job, for identifying those who qualify, and for correlating visual skills to job requirements . . . to the profit of the employee and the employer.

### A PROVED METHOD TO HELP YOUR PLANT MAKE MONEY 9 WAYS

The Bausch & Lomb Occupational Vision Service is available to you. It is easy to administer. Employee participation is voluntary . . . *and workers like the program.* Benefits which accrue in plants using O.V.S. (benefits which can accrue in your plant, too) include:

- |  |                                |
|--|--------------------------------|
| 1. Improved quality of production              | 5. Reduced labor turnover      |
| 2. Increased production per worker             | 6. Lowered training cost       |
| 3. Reduced waste of materials and work rejects | 7. More effective placement    |
| 4. Improved accident record                    | 8. Reduced absenteeism         |
|  | 9. Improved employee relations |

#### MAIL TODAY!

Send for the brochure "Eyes Right for the Job," which tells what the Bausch & Lomb Occupational Vision Service is, how easily it can be administered in your plant, and at what low cost.



Bausch & Lomb Optical Co., 95005 Smith St., Rochester 2, N. Y.

Please send me the brochure "Eyes Right for the Job," and complete details on the Bausch & Lomb Occupational Vision Service.

Name.....Title.....  
Company.....  
Street.....  
City.....Zone.....State.....

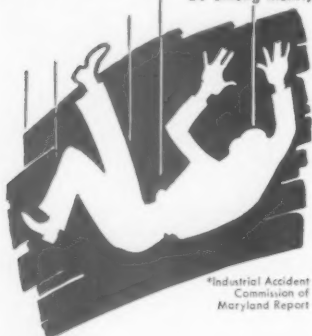


# FALLS

WILL KILL

59 PEOPLE TODAY\*

(Will one of your employees  
be among them?)



\*Industrial Accident  
Commission of  
Maryland Report



will slip-proof these areas where falls occur—whether surfaced with steel, aluminum, wood or concrete:

- Stairways
- Inclines
- Aisles
- Landings
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- Sidewalks
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**EASY TO APPLY**—SURE-FOOT spreads like ordinary paint on any clean, dry surface. No formulas to mix and no special tools or skilled workmen required in its easy application.

**ECONOMICAL**—Low in initial cost, SURE-FOOT offers low cost coverage . . . costs less than 10¢ per square foot installed.

**EASY TO RE-PAINT**—Carbide crystals provide the non-slip element in Frost's SURE-FOOT Paint. Easily renewed where heavy traffic eventually wears through. Just re-paint—no stripping or removing of old paint.

Write Today . . . to Dept. B, for the SURE-FOOT Bulletin. Discover for yourself how inexpensively you can eliminate slippery conditions in your plant.



couldn't move the stuff. So, no matter how sore he got at me, he was stuck with me, an' so he promoted me, an' here we are. An' now, maybe, those fat so-and-sos up front'll know he's a smart super, an' I'm a smart straw boss, an' maybe . . ."

That'll do for Joe's daydreams. If you don't cut him off quick, he'll see himself as chairman of the board by next Michaelmas. Cocky, ignorant, stubborn and mean is Joe. But also a lovely guy.

What's important is that after we got Joe out of the way, Leonard and I sat down and worked out some proposals that can be put through Morton without embarrassing him, can, we think, be documented by the annex experience when the comptroller feeds us the proper statistical breakdowns. And, then, I think, Morton will come up with some physical improvements in his warehouse, with a training program using Joe, with a safety program. And, if we're lucky, Morton will have something to brag about. And it will set Leonard in solid as successor when Morton retires in '55.

And me, well, I think I'll get me a few less accidents to investigate.

## Cross Country

—From page 23

all the operators in his industry. It is difficult—or impossible—for an individual operator to reduce his premium rate. The rate goes down—or up—only according to the total experience of the industry. While this may discourage individual operator's safety efforts, it does stimulate industry-wide accident prevention programs.

The provinces of Ontario and Quebec have stimulated safety by delegating part of the premium payments of each industry for the establishment of associations to reduce accidents. While the western provinces have no such associations, various industrial groups—such as the Lumberman's Association—on their own initiative are tackling the safety problem in order to curb accident rates in their industry.

Canadian small business, like American small business, has a long

row to hoe to introduce safety into its operations. Certainly, working through associations is the most hopeful tack. If associations in Canada and in this country will get behind safety as enthusiastically as the Lumberman's Association—whose J. E. Perkins, a board member, has assured me in a letter just recently, of their continued interest in the safety movement—I think they will have come a long way.

Being a railroad fan, I visited the Canadian Pacific offices in Winnipeg to see Louis Guertin, general manager of the Western Lines (a stretch of road from Fort William on Lake Superior to the Pacific Coast). His bailiwick also includes the hotels in all principal cities and vacation resorts that the Canadian Pacific operates. Lou, as you can imagine, is a busy man. Can you feature worrying about such diverse problems as keeping locomotives from bumping and keeping vacationing American millionaires from slipping in bathtubs! To me, that's running the gamut in accident prevention.

I also stopped by to visit Mr. Moffat, in charge of industrial relations and safety, and J. K. Carroll, general manager, of Swift and Company's Winnipeg plant. Here I got an enthusiastic report from top management of what a safety program can accomplish . . . costs down . . . labor relations improved . . . compensation rate decreased . . . the same story I hear wherever management has fully endorsed and put a safety program to work. Every place I went in the Swift plant—beginning at the entrance where a jumbo NSC poster is displayed—I saw evidence of a carefully planned, thorough-going safety program.

Swift, incidentally, played a leading role in organizing the Meatpackers Safety Council of Winnipeg, which includes large as well as small operators.

\* \* \*

Getting from Winnipeg to Duluth is a thrill if you're a railroad fan. It's an overnight trip (via pullman car that made me nostalgic; I remember being thrilled by this type when I was a boy!) through southern Manitoba,



# Are YOU risking fires like these?





**A PROPERTY-CONSUMING FIRE** resulted above when full fire protection was not provided for this rubber manufacturing plant. If you are responsible for protecting life and property, you can make sure of full fire protection by installing a carefully engineered alarm or release system that incorporates Fenwal DETECT-A-FIRE® thermostats.



**A \$3,000,000 FIRE** occurred at this boarding school. It could have been quickly detected by Fenwal DETECT-A-FIRE thermostats activating an alarm or release fire protection system. These thermostats respond the instant temperature of surrounding air reaches danger point! No hazardous delays! No annoying false alarms! No other fire detection units are so positive.



**A MONEY-SAVING ECONOMY** is still another benefit to users of DETECT-A-FIRE thermostats. Besides cutting loss of life and property, these thermostats assure long-term economy in themselves. They offer built-in extra value by combining long life, corrosion resistance and repeatability. Fenwal DETECT-A-FIRE thermostats are listed by  ... approved by .



**THESE FREE BULLETINS** give you complete details on Fenwal DETECT-A-FIRE thermostats and their new Rate-Compensation Actuation principle of fire detection. They are the only units operating on this principle. Fenwal engineers will be glad to work with you and your system installer in bringing you full fire protection. Write Fenwal, Incorporated, 135 Pleasant Street, Ashland, Mass.



## DETECT-A-FIRE®

Thermostats

DYNAMIC, RATE-COMPENSATION ACTUATED FIRE DETECTORS

# Before the HEAT HITS!

NOW is the time to stock up on hot weather supplies. Play safe! Contact STASAFE! Salt Tablet and Dispenser Headquarters.

## STASAFE ALL-METAL DISPENSERS



JUNIOR

Simple — Sturdy — Sanitary! StaSafe dispensers are made of a corrosive resistant alloy — Carry a five year guarantee against mechanical failure — Are easy to operate. They come equipped with lock and key — wall bracket — inspection window. The StaSafe Junior holds 1,500 tablets. The Midget — 600.



MIDGET

## FAIRWAY PLASTIC DISPENSERS



MIDGET

Made of molded plastic, these Fairway dispensers are Moisture, Dust, and Corrosion resistant. They protect your tablet supply from contamination. All Fairway plastic dispensers have a visible tablet discharge control — are furnished with lock top, key, mounting bracket and screws. The Junior holds 1,500 tablets. Midget — 350.



JUNIOR

## FAIRWAY CRYSTAL DISPENSERS



CRYSTAL

Popular demand — Crystal throw-away type. Inexpensive — Sanitary! The Crystals are filled with enteric coated salt tablets and sealed in at the factory. When the tablets are gone, just throw the dispenser away. The Crystal holds 500 tablets. The Crystal-M — 1,000.



CRYSTAL-M

## FAIRWAY TABLETS

For the prevention of heat sickness due to loss of salt — order regular salt, combination salt and dextrose or either style enteric coated. Workers everywhere need little encouragement to beat heat fatigue with salt tablets when the tablets are FAIRWAY.

**Before the Heat Hits! Order Now!**

Send For Informative Booklet No. 549



**STANDARD SAFETY EQUIPMENT COMPANY**  
232 WEST ONTARIO STREET CHICAGO 10, ILLINOIS

NEWARK 4, N. J.  
597 BROADWAY

CLEVELAND 6, OHIO  
2029 EAST 102nd ST.

LOS ANGELES 16, CAL.  
2952 CRENSHAW BLVD.

around the Lake of the Woods, and then down a long, steep grade into Duluth. It's a slow, grinding ride, enjoyable probably only if you're a railroad fan.

The Duluth Annual Industrial Safety Conference is one of the safety highlights of the year. Sponsored by the Duluth Chamber of Commerce, it consists of a series of one evening meetings on plant safety throughout the winter months—meetings attended by all levels of industrial personnel from top management to Joe Safety-committeeman. Through these sessions safety—as it should be—has been made a common meeting ground for employer and employee.

In the late afternoon people start arriving by busloads to attend subject sessions on public utilities, shop practices, construction, pulp and paper, and many other areas of industrial safety at which leading safety engineers, personnel, and production men speak. Then, after dinner, the whole gang gets together in general session to hear a featured speaker—at this session I was lucky enough to be that guy.

I have been making speeches throughout the country for over 20 years. But this affair in Duluth, without a doubt, was the most thrilling experience as a speaker I have ever had. To talk to 1,000 people, as any speaker knows, is a real thrill. But when you consider that these 1,000 people are workers, foremen, production men who are there on their own time because of their interest in safety . . . well, what more can a guy in the safety business ask for! That meeting was a once-in-a-lifetime experience for me.

Duluth industry, the Chamber of Commerce, fellows like George Northhelfer, Art Rohweder, and Arthur Carle, deserve a real tribute for building industrial safety in a community-wide project. Duluth industry has made safety more than a force in labor and public relations. They have made safety a civic project concerning and benefiting all. They've put safety where it belongs—up front—in Duluth.

Success consists of getting up just one more time than you fall.

## Industry's Show Windows

—From page 22

nication between management and employees. In it you can promote safety vigorously, intelligently and interestingly. If it isn't used effectively both you and the editor are missing a big, important, long odds bet.

Then we have our advertising program. Not all companies do advertising regularly but any company can profitably use advertising space in the community newspaper to tell the story of a safety record and how it was achieved in a dramatic way.

One ad was based on a pair of goggles that saved a man's eyesight. We used a drawing of the employee, a picture of the badly cracked goggles and then told the story of safety. This particular advertisement was run at that time because we had a news story to tell and we told it.

In Republic's advertising schedule, carried by some 45 plant town papers, advertisements regularly tell the safety story. Whenever possible these advertisements are tied to an actual event. This heightens the interest and the drama of the story.

Why spend money for advertising, you ask, when news columns are open to safety stories? The answer is that an advertisement permits you to tell your story exactly as you want it told. It normally takes more space than a news story would. As a result, it is probably seen by more people, which is all to the good.

Let's not confine our efforts to safety records. Let's look for more stories based on individuals and their contribution to safety. If a quick-thinking, level-headed employee has prevented what might have been a serious accident, you have the makings of a good news story. By inference, at least, it points to the effectiveness of the plant's safety program. It shows that employees have been taught to do the right thing in an emergency. Over and beyond that, the individual is entitled to recognition for the job.

Papers are also interested in the accomplishments of safety teams. In Republic's mines, safety teams



BYRON M. GLAD  
Portland Manager



WILLIAM J. McELROY  
President  
and General Manager



GERALD T. KNOTT  
Asst. General Manager

### ROUND SEATTLE CHAIN CORP.

For nearly forty years, Round Seattle Chain has been growing with the great Pacific Northwest. This important plant not only manufactures and distributes heavy chain for the lumber, fishing and marine industries, but *all types* of welded and weldless chain, chain hoists, electric hoists, trolleys, winches, etc.

ONE OF THE COMPANIES THAT MAKE

*Round* CHAIN

The coast-to-coast Round organization is justly proud of Seattle Chain and of the men who manage it. In all parts of the United States, other Round Chain Companies are equally well qualified to supply a *complete line of chain* in their respective territories. Wherever you are, there's a Round Chain Company nearby to *serve you better*.

*Welded and Weldless Chain for Every Need!*

TOWING CHAINS • TIRE CHAINS • SLING CHAINS  
HOISTING CHAINS • FITTINGS AND ATTACHMENTS

ORDER FROM YOUR DISTRIBUTOR, OR CONTACT ONE OF THE



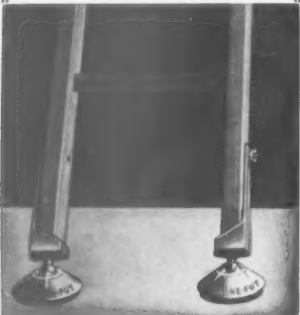
## KEEP YOUR LADDERS ON THE LEVEL!



JOHNNY-FOOT stabilizers keep your ladders "on the level" and avoid hazardous blocking. Constructed of high-grade steel, and precision-machined.

JOHNNY-FOOT stabilizers meet Federal specifications. Tested and listed by Underwriters' Labs., Inc. \$13.85 per pair. F.O.B. Factory, freight allowed.

## KEEP YOUR LADDERS FROM SLIPPING!



JOHNNY-FOOT safety shoe treads are easily interchanged with a spiked foot when working on slippery surfaces.

JOHNNY-FOOT safety shoe's ball and socket mechanism enables the shoe to fit the contour of the surfacing, thus ensuring maximum grip. \$6.85 per pair. F.O.B. Factory, freight allowed.

### Dealer Inquiries Invited

Write for information on JOHNNY-FOOT stabilizers and safety shoes.

**Jon-Ne-Fut Mfg. Co., Inc.**

4982 E. Firestone Blvd., South Gate, Calif.

have won many awards. The papers in the mining communities give award presentations generous coverage. A prize-winning safety team has a valuable psychological effect on the employees and their families. Both groups feel a little safer and a little more at ease when they know of the extra efforts which the company makes to insure the safety of the miners.

Another example of how these two departments function as a team:

Our Tobin ore mine was awarded an outstanding safety trophy for operating a full year without a disabling injury.

Bob Ferguson and I made a trip to Duluth to plan the details of the ceremony with the district manager and the mine superintendent. Every step of the program was discussed. Releases were written, invitation ideas suggested and the printed program laid out.

When it came to the day of the award ceremony, my assistant went up in advance with Mr. Ferguson and rehearsed the ceremony, checked with the regional papers and worked generally to see that there was the widest possible knowledge and recognition of the award.

This to us was an important public relations function on which we could afford to spend substantial time and effort. If the people in the Tobin mine area are convinced that Republic has a deep concern for safety and really works at it, our community relationships are improved and strengthened. And that's what we're after.

To illustrate again the opportunities for helpful cooperation between safety and public relations, let's take a look at the fleet safety problem.

The responsibility of training drivers belongs to the safety department. But from time to time, to stimulate interest, special campaigns are organized. Public relations can help to plan the campaign and produce the written or visual material to arouse the interest of the drivers.

Safety may want letters, booklets, posters or what-have-you. Turn that part of the campaign over to public relations. It's their business to sell ideas.

If you have a fleet operation, let public relations tell the public, first, what you are doing safety-wise; second, how you are doing it; and, third, the results. The driving public, and that's most of us, enjoys too little courtesy on the road. The fact that your drivers specialize in courtesy is a big mark in your favor. Then when you can publicize a no-accident record on the part of your drivers, you have a story that gets through the consciousness of a lot of people.

### Open House Programs

There is one field in which the public relations department must consult with and follow the advice of the safety department. That is in any open house program a company may have.

Personally, I always breathe a little more freely when the gates have closed behind a large number of visitors. Unfamiliar with plant practices and routine, highly curious and interested visitors can become involved in accidents if all plans have not been thoroughly worked out in advance.

If that happens, any benefits from a plant visit are lost. Your company's safety position has taken a step backward.

When we plan an open house or a plant visit by a large group, the safety department tells us where the visitors may be taken. We don't argue if they rule out some part of the plant which to us seems most interesting. As far as I'm concerned, safety is the boss.

The safety department specifies how traffic, automobiles, buses, should be handled and where. The department also lays out the route and sees that the walkways are clearly and unmistakably marked. In some cases operations which are perfectly routine are suspended because they might be a hazard in the case of a group of interested strangers.

Our safety department also takes the responsibility of informing the employees of the open house, who the visitors will be and any other facts which might be helpful.

Finally, safety men either go with the group, if it is a small one, or are stationed at strategic spots

HOOD

"on-the-job wear tests"

assure safer, longer-wearing GLOVES

Hood's glove research men go right into the field — in every type of industry — to make exhaustive wear tests on all types of Hood Gloves. This on-the-job testing enables Hood Gloves to give top service under the severest working conditions, for the findings from this continual research lead to the adoption of new, improved processes designed to build greater safety and durability into Hood Gloves.

Hood manufactures a complete line of industrial rubber gloves to meet every job requirement. Featured in our complete catalog is the Hood Glove Guide Chart which shows you "how to choose the RIGHT Glove for EACH job". Write for your copy today.



*hands are vital...protect them with HOOD GLOVES*

**HOOD RUBBER CO., Watertown, Mass.**

Neoprene Palm-Coated

8 times wear of standard canvas gloves

For general utility use

Knit-wrist



Natural Rubber Palm-Coated

Standard weight

For general utility use

Knit-wrist with a non-skid finish



**Why PAY THE PRICE of Dirty Floors?**

**DIRT, DUST, OIL, GREASE**, other foreign matter deposited on floors due to plant operations, makes footing hazardous, may cause falling accidents—tracks onto clean areas adding to maintenance expense.

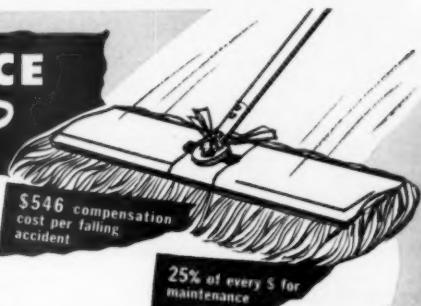
**HILLYARD CLEANS UP ON DIRT**—with thorough, no-rinse chemical cleaning, protective sealing and "anti-slip" finishing to guard against dangerous "pile-up" of dirt on floor surfaces. Working conditions safer! Upkeep costs reduced! Lower insurance rates for plant management. That's why it's important for you to specify the best industrial floor treatment. Hillyard products for industry are U/L approved.



A Hillyard Maintainer (floor expert) can easily demonstrate the way to cleaner, safer floors in your plant, with our charge.

... on your staff not your payroll

**SAVE MONEY with SAFE**  
Hillyard floor sanitation and treatment ...



\$546 compensation cost per falling accident

25% of every \$ for maintenance

Poor housekeeping major cause of falls in industry



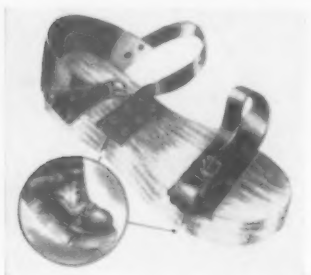
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**Hillyard Chemical Co., St. Joseph, Mo.**  
Show me the Hillyard way to cleaner, safer floors at savings up to 50% in labor time.

Name \_\_\_\_\_  
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Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_



## AN IMPROVED REECE "Hot Foot Sandal"



No. 351—For hot steel. Straps on quickly over any shoe. Heat proof—puncture proof. One inch thick seasoned wood. Two strong sole leather hinges. Sturdy leather counter-adjustable leather straps. Sizes—Small—Medium—Large.

## STRONG STEEL TOE



No. 504-S—Reece All-Purpose Shoe with durable leather uppers, steel toe, Reece "PERFECT ROCKER" Wooden Sole. Safe, reliable, dependable for factories, platers, oil refineries, foundries, steel mills. Also other styles. Sizes—5-13. No half sizes.

Write for  
Complete Catalog

**REECE**

**WOODEN SOLE  
SHOE CO.**

There is no  
substitute  
for Reece  
Wooden  
Soles

NS-5

COLUMBUS, NEBRASKA

in the plant, if the number of visitors is large.

With a plan of this sort the public relations man can feel that trained safety men are taking over an important part of the event and giving it the expert handling it demands and deserves.

If the group is large enough, we always have a safety exhibit at some conspicuous point along the route. Visitors are invariably amazed at the many kinds of equipment that are used to prevent accidents and spend a lot of time in looking the equipment over.

The visitor is impressed with the fact that safety is not just a word but a religion that is practiced by the entire work force, under the leadership of the company; that it is a part of every man's job.

### Checking Photos for Safety

Incidentally, our department never takes a photograph without having a safety man along. In the early days before we knew better, this practice was not too closely followed. But after we had otherwise excellent photographs turned down by the safety department because they included a minor safety or good housekeeping violation, we learned better.

For instance, we have a weekly photographic record of the \$75,000,000 plant expansion under way in Cleveland. As a matter of routine the photographer picks up the safety man on his way into the plant and checks every shot with him before the shutter is clicked. As a result, we have had no difficulties with the safety department, nor do we have to throw pictures in the waste basket.

One important field in which safety men can help public relations is by supplying interesting and dramatic material for speeches.

This does not mean that the speech must be devoted to safety. By no means. But if the material is at hand, a few paragraphs or a page on safety can be properly tucked into a talk which may be on an entirely different subject. There must be a relationship, of course, but safety is so important, so vital in the steel industry, that our top executives are glad to talk about it on every possible occa-

sion.

In that same general area, the safety department annually furnishes highlights on safety accomplishments of the year for use in the annual report to the stockholders.

We believe that the stockholders should know that safety is an important, and successful company activity.

Another method which we use to acquaint people with our safety program and its results is our speakers' bureau. For the past ten months we have had our own speakers' bureau in Cleveland. The idea is now being put into operation in Canton, Massillon, Youngstown and Warren. In Cleveland we have ten speakers, all junior executives. One of the ten has a talk dealing with employee relations. Naturally, safety has a prominent part. Safety also finds a place more briefly in other talks.

Since our Cleveland program started, 100 organizations have asked for speakers. The audiences are luncheon clubs, women's groups, churches, etc. Through this program we carry a safety story direct to thousands of people who might otherwise never get it.

We feel that this face-to-face contact between a company representative and the audience is tremendously important. People form their opinions of companies not from inanimate plants and equipment, but partly from products and more important, I believe, from people. We believe these talks develop a greater understanding of the company and of the company's program and policies, including safety.

Any company can carry out this same plan in its community. It is valuable as a community public relations project.

One more example of how safety can strengthen community relations.

One of the hospitals in a plant community became deeply concerned about the effectiveness of its fire prevention and fire drill programs. After looking over the field of possible sources of help, the hospital turned to the safety department of our plant in that community. First a check was made on what was being done. This was followed with a study





## THEY'RE RELAXING

SO THEY INVITED MR. STONEHOUSE TO SIT IN ON THIS PICTURE...When he founded the business many years ago, Mark and Mitzi were nowhere around...but they make up for lost time, showing how to "watch out...be careful...avoid accidents."

**FOR YOU SEE...THEY KNOW THIS IS THE SAFETY SPIRIT...FOR EVERYONE**

**Stonehouse**  
"Signs Since 1863"

**SIGNS, inc. MANUFACTURERS • Stonehouse Bldg., 9th at Larimer  
Denver 4, Colorado**

Third of a "Mark and Mitzi Stonehouse" series.



**COTTERMAN  
WELDED STEEL SAFETY LADDERS**  
For Filing Rooms—Stock Rooms—Vaults



54"—6 Step

Mounted on Swivel Brake Casters which allow the ladder to be rolled freely when no one is on it. When you step on the ladder the rubber cushioned legs rest on the floor and prevent rolling.

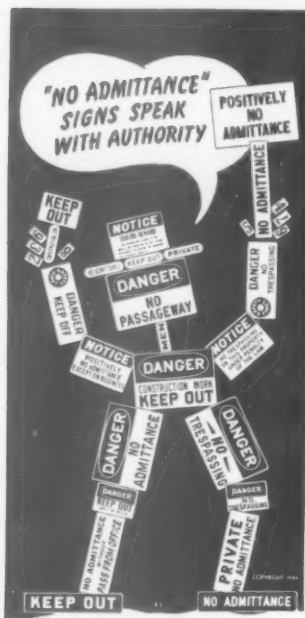
Made in 7 heights:—18" 2 Step, 27" 3 Step, 36" 4 Step, 45" 5 Step, 54" 6 Step, 63" 7 Step, 72" 8 Step.

All are made in either 19½" or 25½" width.

Send for Circular No. 51-N and prices on these ladders and our full line of Wood Rolling Ladders.

Manufactured by  
**I. D. COTTERMAN**

4535 N. Ravenswood Ave. Chicago 40, Ill.



WRITE FOR LATEST CATALOG SHOWING  
SAFETY SIGNS FOR ALL PURPOSES

**STANDARD SIGNS, INC.**  
3190 E. 65TH ST. • CLEVELAND 40, OHIO

**SAFE**

**STRONG**

**EASY  
TO MOVE**

**EASY  
TO CLIMB**

**NON-SKID  
STEPS**

of what should be done. A manual was written and an intense training program started. Our safety people took the leadership in the program.

The value of this cooperative effort cannot be over-estimated. The company performed a great public service gladly, willingly. It was felt that if our contribution could help to save one life or prevent one injury, the time spent was worthwhile.

## Looking Backward

—From page 27

unfounded; everyone got a terrific kick out of it. In fact, we had a hard time getting the mule to leave that night. This certainly kept the idea of safety alive for some time, and provided the topic for a lot of conversation.

Our next promotional stunt was a race track idea. "Win, Place or Show, You Can't Lose on Safety," was the slogan. The plant payroll distributors wore tellers' uniforms, in keeping with the racing theme.

By this time employees were expecting and looking forward to these stunts. We kept a snapshot album of our various projects and it grew fast. We try to devise promotional activities which are in keeping with the times and are adequately spaced to have an appeal for the employees.

Our safety record forms have been streamlined and made as efficient as possible. We have our own check lists for safety inspections, as well as good housekeeping. Included in the house organ is a monthly article, "Accidentally Speaking." It differs from the other techniques that have been employed in the safety program. We are always open minded and appreciate constructive criticism.

Various contests for motivation are conducted. There is an annual contest for the best safety slogan of the year submitted by our employees. The winner receives a substantial reward, and his slogan occupies a sign about 30 feet long over the main entrance to the plant, where it will be seen by all employees as they enter. We also sponsor various monthly contests for the best department in safety and housekeeping, and the plaque

awards continually shift from one department to another.

We utilize all of the National Safety Council's excellent posters and other aids. We use their safety manual, slogans, safety fleet manual, the index cards—in fact, almost anything they publish. We have found this material valuable, and we follow an especially rigid schedule in the rotating and changing of Council posters.

I was pleasantly surprised that some of the things we were doing in our safety program were approved by the Council's Safety Training Course. I had my choice of attending the Safety Congress or the school, and decided on the school in October, 1951. I couldn't have made a better decision. I don't know where else you could absorb as much safety knowledge as I did in the five days spent there. The week passed much too fast, and the experience of exchanging ideas with other safety men and with the instructors, each an expert in his field was invaluable.

I have corresponded with some of the National Safety Council instructors, as well as the students, and don't hesitate to ask for their advice on specific problems. The aid is always extended graciously. I have several letters from various students, saying they are utilizing some of the knowledge gained in the school, and all are enthusiastic about attending the Congress next year.

This "Looking Backward" report is almost complete now. I would like to mention several innovations we are employing at Quaker Rubber Corporation. We have a safety maintenance man, who works on safety only. We formerly had a "back log" of hazards to be corrected, and it seemed as if we never completed the month's list. Now we keep ahead of our maintenance and safety repairs, and if a rush job turns up, it can be corrected immediately!

An optometrist comes in for an hour twice a week to adjust or fix safety glasses. If the employee needs an eye examination, he makes an appointment, and within two weeks, the glasses are ready for wear. The company pays for the glasses and in return expects



*FogFOAM is discharged directly into flames, smothering fire in seconds.*

## Plane Crash Fire Controlled in Seconds

*... with Rockwood-equipped fire truck*

When Pratt & Whitney Aircraft division of United Aircraft Corporation decided to design a really outstanding fire truck, they turned to Rockwood for the special fire-fighting equipment needed. The result? A mobile unit that controls aircraft crash fires in seconds.

Two Rockwood FogFOAM Turret Nozzles mounted over the driver's cab are unique features of the unit. They discharge huge quantities of FOAM or FogFOAM into the fire, smothering flaming gasoline and blanketing wreckage. The Rockwood FOAM flows freely at sub-zero temperatures, clings to metal surfaces as an insulator, can be easily washed away after fire is put out.

If crash fires occur, the truck can speed directly to the scene . . . reaching any corner of a 650-acre flying field in one minute. Test fires have been controlled in less than 30 seconds!

Similar equipment is used for fighting gasoline spill fires on city streets, refineries, industrial plants, etc.

**Get the Complete Facts!** Rockwood's contribution to the Pratt & Whitney Aircraft truck is but one of many successful applications of Rockwood fire-fighting equipment. All types of equipment to combat all types of fires are available at Rockwood—or made to individual requirements. For complete details, send for your copy of our new illustrated catalog.



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**ROCKWOOD Type FFF FogFOAM Turret Nozzle** can be manually operated from roof of cab. Other types of Rockwood Turrets can be hydraulically operated from within cab. Provides 4 different types of discharge: FogFOAM, solid FOAM stream, WaterFOG, and solid water stream.

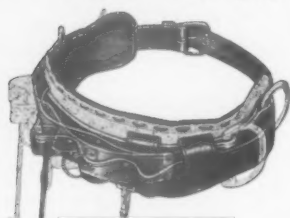


**ROCKWOOD Under Truck Nozzles and Ground Sweep Nozzles** protect front and under parts of fire trucks. Also puts out fires in path of truck. Discharges FogFOAM or WaterFOG.



**ROCKWOOD Hand Lines** utilize Rockwood SG Type Nozzles. They discharge High Velocity WaterFOG, FogFOAM, Solid FOAM Stream and Straight Water Stream and are available in 1" sizes only.

## A Full 5 Inches of Body Movement With Ease and Safety



### BASHLIN'S New Shifting Tool Dee Safety Belt

Next to Safety in the experienced lineman's book, Accessibility of Tools is of first importance in selecting a Safety Belt. This new Bashlin Safety Belt is designed with sliding tool loops... keeps tools within easy reach. And the built-in extra safety factor saves the Safety Strap from wear. It's Safe... Practical... Comfortable... and you know it's right. It's Bashlin.

## Another First

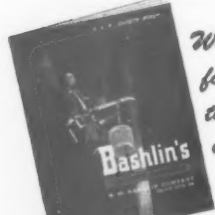
One piece aluminum sleeve adjusts from 15" to 18" in multiples of 1/4". Locked in place with standard steel screws.

Comfort on the job, lightness and safety combine in Bashlin's adjustable Climber with removable gaff... Forged of aluminum alloy, the Bashlin Climber is lighter than conventional climbers and the Same Strength as Equivalent Steel. It's form fitting and has all the original Bashlin features.



No.  
BD 14

Removable gaff forged from alloy steel, features triple locking device with standard self-locking tested steel screws



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for  
this  
catalog

**W.M. BASHLIN**  
COMPANY

them to be worn. We didn't have a serious eye injury during the entire year. The glasses, except for being slightly heavier, could pass for regular eye glasses.

We are also utilizing some minor psychotherapy, or "accident therapy" as we call it. Our industrial nurse, Claire Carroll, has played an important role in our safety program. She keeps a detailed report of every person visiting the dispensary, which is one of the most modern and well equipped in our section of the city. In this manner, we can spot the "frequenters" or danger spots, and by counseling and guiding, which consists of 5 to 10 minute discussions, help reduce this group to a minimum. We have found that some employees may have financial or personal problems that keep them from concentrating on the job. We have been able to help the majority of them.

Our plans for 1952 include our own slide films for the orientation of new employees (This will be in addition to the book of instructions we now furnish them). We also hope to have more group meetings to keep the program active and vital!

We couldn't have made this improvement in our safety record without the cooperation of everyone concerned—management, the safety committee, the union, the foremen, the employees, and the services of the National Safety Council. We have not only emphasized the engineering and mechanical aspect of safety, but the important psychological factor as well. We have gained confidence in 1951, and are eagerly anticipating a better record in 1952. We have a sign over the entrance to the plant with this inscription: "Through This Door Pass the Safest Workers in the World."

We are no longer "Looking Backward."

## AGC Safety

As another step in its safety program, the Associated General Contractors of America has published 14 pocket-sized reprints of some sections of its *Manual of Accident Prevention in Construction*.

The 4 x 6-inch reprints can be used on construction jobs by superintendents, foremen, workmen or other employees of general or sub-contractors.

Each of the 14 reprints will contain from one to six appropriately grouped sections of the original manual. The material and page numbers of the reprints generally are the same as the manual. Each reprint has extra pages in the back for notes.

Each section of the manual outlines recommended safe practices for carrying out various operations encountered in a wide variety of construction projects. The manual is particularly useful in offices where future operations are planned.

The *Manual of Accident Prevention in Construction* was completely revised in 1949. It has been approved by the American Standards Association.

## Safety Library

—From page 56

### Power Presses

*Safety Devices for Dies and Machines.* By C. W. Hinman. (In *Modern Machine Shop* March 1952, p. 204.)

### Printing Industry

*Building in Press Safety.* By Lillian Stemp. (In *Bookbinding and Book Production* March 1952, p. 41.)

### Resuscitation

*A Better Way to Save Lives.* (In *Factory Management and Maintenance* March 1952, p. 124.)

### Textile Industry

*Accident Hazards Spotted by Generous Use of Paint.* (In *Textile World*, March 1952, p. 143.)

*Industry's Anthrax Incident Rate Up.* By Dr. Roger Conant. (In *Textile Industries*, March 1952, p. 120.)

### Ventilation and Exhaust System

*A Dust Removal System that Grows with the Plant.* (In *Factory Management and Maintenance*, March 1952, p. 96.)

### Warehouses

*Work Injuries in Warehousing Operations.* (In *Monthly Labor Review* Feb. 1952, p. 156.)

# PORTRAIT OF A LEADER



Always make it a point to LOOK FOR THE PAX ROOSTER! It's your surest guide to products you can trust—your protection against substitutes. This nationally-famous PAX trademark identifies every container of PAX Industrial Cleansers. It signifies the unmatched standards of Quality, Performance and Value which have enabled PAX Products to maintain their year-after-year leadership for over a quarter of a century.

**PAX-LANO-SAV' HEAVY DUTY**—The Aristocrat of all industrial granulated skin cleansers, is used by millions of workers in many thousands of plants all over America. It has been awarded the official seal of acceptance of the Committee on Cosmetics of the American Medical Association.

A complete line of other granulated and powdered skin cleansers, each the finest in its price range.

**PAX-SOLV' WATERLESS SKIN CLEANSER**      **PAX HECTO INK SKIN CLEANSING CREAM**  
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**PAX F-34' FOR FLOORS**      **PAX DEGREASERS**

The PAX cleanser line is complete. It will pay you to order all your needs from this one dependable source. Write for catalog and name of nearest PAX Distributor.

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CARS ON GRADE

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**RAIL CLAMP**

Reduce danger of costly derailments and accidents to employees with the M & M Rail Clamp. It holds car wheels in immovable position—*positively will not slip*. Hard industrial use in steel mills, ship yards, quarries, mines and cement plants prove its dependable, safe performance.

It saves time in moving up, too, because it requires no ties, blocks or shims.

A compact, complete unit, the M & M Rail Clamp is available in two sizes—Model A, 40 to 100 lb. rail; and Model F, 110 to 175 lb. rail. Order now for immediate delivery.

**SAFETY FIRST SUPPLY  
COMPANY**

425 Magee St.  
Pittsburgh 19, Pa.



## Streyckmans Appointed Editorial Director of NSC



Felix B. Streyckmans



Bill Andrews

BILL ANDREWS has resigned as editorial director of the National Safety Council to accept a call as lay missionary to Calvary Episcopal Church in Roundup, Montana. He will be succeeded on June 1 by FELIX B. STREYCKMANS, who is now editor of *The Kiwanis Magazine*.

Mr. Andrews has been in charge of the editorial staffs of the Council's nine magazines since 1945. He had joined the publicity division of the Council in 1942, was released to serve the War Department as an editorial analyst for 20 months during the war, and returned to the publicity division late in 1944.

Before joining the Council staff, Mr. Andrews had varied editorial experience on general, trade and educational publications, including *Esquire* and *Coronet*. To readers of *NATIONAL SAFETY NEWS*, he is perhaps best known as the author of the popular monthly feature, "The Diary of a Safety Engineer."

In addition to serving the Roundup church, Mr. Andrews will study for examinations leading to ordination into the Episcopal clergy.

Mr. Streyckmans was born in

Springfield, Illinois, and attended Northwestern University. He is a member of Sigma Delta Chi, national honorary journalistic fraternity.

Mr. Streyckmans joined the Kiwanis staff in February 1946 shortly after leaving the Army. Concurrently he taught journalism in the Medill School of Journalism, resigning a year ago to take command of the only psychological warfare group in the Army reserve—the 305th Radio Broadcasting and Leaflet Group.

Before the war he was editor of *Future*, magazine of the U. S. Junior Chamber of Commerce. He wrote several weekly newspaper syndicate series for Western Newspaper Union and wrote the Chicagoana Department of the old *Chicagoan Magazine*. He is author of a book, *Today's Young Men*.

### In French

Soyez prudents—la vie que vous sauvez peut être la vôtre.

That's the French version of the Council's slogan, "Be careful—the life you save may be your own."

To err is human, but if the eraser wears out before the pencil, you're overdoing it.



# Why Skin-toughening PREVENTS ATHLETE'S FOOT

## SHOES CAUSE ATHLETE'S FOOT



The modern shoe is the main cause of athlete's foot, says the U. S. Public Health Service (Bulletin R-674). Shoes soften and devitalize the skin. This soft, dead skin inside a warm dark shoe is ideal soil for the growth of athlete's foot fungus.

## FUNGUS SPORES ARE EVERYWHERE

The fungus spores, or seeds, are as common as dust. Some of them are on the skin almost all the time. And when the skin's resistance is low, they grow and multiply. The result is athlete's foot.

*The chief danger of athlete's foot is that it causes cracks in the skin. More dangerous germs can then enter the blood stream. Serious secondary infections may result.*

## DISINFECTING THE FEET WON'T HELP



Attempts to disinfect bathers' feet are "futile, illogical, and potentially harmful," according to skin specialists.\* You can't kill all the fungus spores, and you may weaken the skin still more by trying to kill them.

## WHAT IS THE ANSWER?

Skin specialists say that the best chance of preventing athlete's foot is to build up the skin's resistance to fungus attack.\* A strong healthy skin is your best defense against the ever-present fungus spores.

*That is the basic principle of Onox skin-toughening.*

\*Archives of Dermatology & Syphilology, April, 1942.

## WHAT IS ŌNOX?

ŌNOX is an odorless, non-poisonous solution of five beneficial mineral salts. Both laboratory† and controlled tests show that Onox toughens the skin and makes it resistant to fungus attack.

†Pease Laboratories, Inc., New York, N. Y.

## IT'S EASY TO USE

Onox is used in a soft sponge rubber mat. One mat serves 50 bathers on a shift. Stepping on the sponge (after showering) forces Onox up between the toes, where it is needed. A good percentage of the salts stay on the skin, even after drying with a towel.

## MEN LIKE TO USE THE MATS

The sponge mat is pleasant to step on. It is neat and attractive—no splash, no mess. And Onox is very refreshing to tired, aching feet.

## FREE BULLETINS AND LEAFLETS

Free bulletins are sent you each month. These, along with easy-to-read leaflets, explain the need for skin-toughening. Customers report excellent results with this free service material.



**Ōnox skin-toughening is used by over 70% of the largest manufacturers in the U. S. A.**

ODORLESS  
EASY TO  
MAINTAIN  
NOTHING  
TO GET OUT  
OF ORDER



**COST IS SMALL—  
1¢ PER MAN PER WEEK**

**TRIAL OFFER...** We will ship any amount of Onox and footmats for 60 days' use. If you and your men are not more than satisfied with results, you owe us nothing. For further information, write, or send coupon.

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Send free catalog—no obligation—about Onox.

☐ We have showers. ☐ We plan to have showers.

Name.....Title.....

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Here's an AMAZING BRAND NEW SAFETY SIGN that will be welcomed by Safety Men! Brady Safety Signs stick to wood, glass, metal, concrete, etc. without moistening. May be applied to any clean surface in a jiffy. No screws, nails, bolts or skilled help necessary. All you do is peel from card, apply where wanted and the sign is up to stay.

Brady Safety Signs are made of durable cotton cloth, Silicone Coated to resist dirt, grime and moisture. CONFORM TO ASA Standard Z35.1-41. Select your requirements from a complete catalog of standard safety messages. Cost only a few cents per sign. Immediate delivery. Specials made to order.



SAFETY EQUIPMENT FOR ALL INDUSTRIES

**LIGHTWEIGHT CHAMPION**



**BROAD  
VISION  
DUST  
AND  
SPRAY  
HOOD**

WEIGHS ONLY 9 OUNCES . . . New design window assembly allows unobstructed vision in all directions. Does not interfere with the wearing of correction glasses. Heavy gauge plastic window provides impact resistance. Quickly replaced, when necessary, without use of tools.

WRITE FOR BULLETIN NO. 42

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## Personals

STANLEY F. WITHE, head of the public education department of the Aetna Life Affiliated Companies, has been appointed chairman of the public relations committee of the National Fire Protection Association.

A member of the association's public relations committee for a number of years, Mr. Withe has pioneered the development of the Aetna's public educational loss prevention services. He was recently named to the newly-organized public relations advisory committee of the United States Chamber of Commerce. He is a member of the Public Relations Society of America and a director and former treasurer of the society's New England chapter.

DR. JOHN H. FOULGER, director of the Haskell Laboratory of Industrial Toxicology, has been appointed director of medical research in Du Pont's Employee Relations Department, the company announced today.

This newly created position was made necessary by Du Pont's expanding activity in research on products and manufacturing processes to eliminate potential hazards to employees and customers. Related efforts have also been broadened.

Dr. JOHN A. ZAPP, JR., assistant director of Haskell Laboratory, succeeds Dr. Foulger as director. The laboratory has been located at

### WANTED

Work glove salesman with following of Industrial Accounts in Pennsylvania, New York, New England or Middle West. Car, Travel, Commission. May carry non-conflicting kindred safety line. Address Box 425, NATIONAL SAFETY NEWS.

Once there was a man who always called a spade a spade until he fell over one he had left on the cellar steps.

How busy is not so important as why busy. The bee is praised; the mosquito is swatted.



if you want **protection** from



STUDY OF ACTUAL FALLING SEQUENCE BY STROBOSCOPIC MULTI-FLASH EQUIPMENT AT 1/10,000 OF A SECOND

... **use FLOORSAFE,**  
the new anti-slip floor dressing

Protect your place of business from crippling falls. Floorsafe gives your floors "Traction-Action."

Anti-slip synthetics with a high coefficient of friction are used in the manufacture of this new floor dressing discovery.

Floorsafe is approved and recommended by major U. S. insurance companies.  
Call, wire or write.

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BRANCH OFFICES IN PRINCIPAL CITIES

the Experimental Station since it was established in 1935. New facilities for it are now being constructed on the site of the Stine Laboratory near Newark, Del.

PAUL H. BLAISDELL, since 1945 executive director of the National Committee for Traffic Safety, has been appointed director of the public safety division of the Association of Casualty and Surety Companies.

Mr. Blaisdell is joining the Association's accident prevention department staff in the position previously held by Thomas N. Boate, recently named manager of that department. Mr. Boate succeeded Julien H. Harvey as department manager following the latter's retirement last December.

A native of New Hampshire and a former newspaperman, Mr. Blaisdell has been active in highway safety work for more than 15

years. Since 1945 he has served as a member of the executive committee of the President's Highway Safety Conference and for six years has been secretary of its Committee on Safety Organization.

Mr. Blaisdell worked on various New Hampshire daily newspapers between 1931 and 1934, following his graduation from the University of New Hampshire in 1930 and from Columbia University in 1932. He became assistant secretary to the governor of New Hampshire in 1935 and from 1936 to 1941 was with the New Hampshire Public Service Commission as transportation inspector and assistant transportation director.

Mr. Blaisdell was national field supervisor of the Government Mileage Conservation Program conducted by the Office of Price Administration during World War II. He left this position in 1946 to join the National Committee for Traffic Safety, with headquarters in Chicago, as its executive director.



## SAFE • STRONG • SECURE

Before specifying or purchasing open steel flooring check these exclusive features of Blaw-Knox Grating . . .

1. SAFETY underfoot at all times assured by twisted steel cross bars.
2. STRENGTH that only rigid "one-piece" Electro-forged construction can provide.
3. SECURITY—no wobble, tilt or rattle caused by loose or lost screws, nuts, bolts.
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For complete data on Blaw-Knox Electroforged Steel Grating and Stair Treads write for Bulletin 2365.

**BLAW-KNOX DIVISION OF BLAW-KNOX COMPANY**  
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# BLAW-KNOX

*Electroforged*

**STEEL GRATING AND STAIR TREADS**



## VOLAX REMOVES IT IN A JIFFY!

VOLAX was developed for heavy-duty skin cleansing . . . for removing ground-in printer's ink FAST—but gently, without irritating the skin. Contains mild soaps, water softener and friable volcanic ash. A SIMPLE TEST WILL CONVINCE YOU—Ground-in dirt and ink discoloration disappear when VOLAX HAND CLEANER goes to work!

Let your DOLGE SERVICE MAN demonstrate!



DAUN PETERSEIM has been named safety engineer at Battelle Institute, Columbus, Ohio. He will administer the Institute's safety program, which last year received special commendation from the Atomic Energy Commission.

A 1942 graduate of Ohio State University, Peterseim was, up to the time of the new appointment, a member of Battelle's chemical engineering research staff. Before joining the Battelle staff in 1943 he had been a chemical engineer with the Firestone Tire and Rubber Company in Akron.

GLENN G. FLEMING was named safety director of Celanese Corporation of America, effective April 1, 1952. Mr. Fleming, for the last several years safety engineer for the corporation, will formulate and administer the company's safety policies and programs on all matters pertaining to accident prevention, fire prevention and protection, occupational diseases and hazards and plant security.

## Obituary

### CLYDE W. SMITH

CLYDE W. SMITH, who established one of the earliest safety departments in the petroleum industry, died March 19 at his home at Greenfield Shores, Scotts, Mich., after a long illness. He retired in 1945 as manager of the Safety Department of Standard Oil Company (Indiana), Chicago.

Mr. Smith was born in Vicksburg, Mich., October 25, 1889. He attended Albion College and the University of Michigan and was graduated from Michigan State Teachers College. Before joining Standard Oil Company he was a teacher at Ironwood, Mich., and Harvey, Ill.

On July 8, 1918, he established the safety department at Standard's Whiting, Indiana refinery. Five years after safety work was established in the manufacturing department it was extended to the



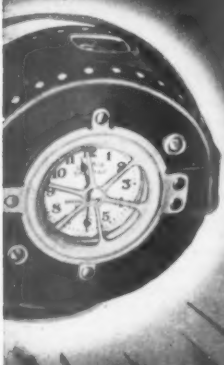
Clyde W. Smith

sales department. Under Mr. Smith's direction the company's refineries and other units won numerous awards, and established several new safety records.

He was a member of the National Safety Council's executive committee for many years and a vice-president for two years. He

**HERE'S  
PROTECTION**

against  
**FIRE  
THEFT  
SABOTAGE**



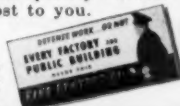
## CHICAGO Watchclock System

"The first... and still the first."  
LOWERS YOUR INSURANCE RATES!



It keeps track of your watchman's tracks—so accurately and positively that the CHICAGO WATCHCLOCK System is approved by THE UNDERWRITERS' LABORATORIES and by THE FACTORY MUTUALS LABORATORIES. Users earn reduced insurance rates. Thus the CHICAGO WATCHCLOCK System quickly returns its small cost to you.

Write for FREE  
new folder that completely describes this  
simple, low-cost, tamper-proof system of ex-  
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**1500**  
TYPES and SIZES

THE MOST COMPLETE LINE

THESE EXCLUSIVE PRODUCTS



## THE MOST COMPLETE LINE

There are almost 1500 types and sizes in Laughlin's quality line of drop forged fittings.

There are many different styles of shackles, swivels, hooks, thimbles, clips, sockets, eye bolts and other products designed for a wide variety of applications throughout industry. If you use wire rope or chain, you can be sure that Laughlin has the right — and safest — fittings for the job.

## THESE EXCLUSIVE PRODUCTS



Safety "FIST GRIP" Wire Rope Clips . . . Fool proof, easy to install. Fist Grip clips hold rope more securely, can't go on wrong. Fewer clips are required than for ordinary types, and they will not crush or distort the rope.

**SAFETY HOOKS** . . . The latch locks the load, will not open until released by operator. Strong, drop forged steel hook has improved latch that leaves 80% of throat opening. 15 sizes; 3 patterns, eye, shank and swivel.



"MISSING LINK" (Reg. U.S. Pat. Off.) . . . Cheaper than welding, safer than cold shut or cast link, "Missing Links" go on in a jiffy and are stronger than proof coil chain. 17 sizes from 3/16" to 1 7/8".

**CLEVIS GRAB AND SLIP HOOKS** . . . These sturdy hooks are easily attached to any welded link chain. Pin and cotter make it easy to attach or remove for use on another job. Needs no connecting fittings or special tools.



Laughlin's new Catalog No. 150 lists the complete line of drop forged wire rope and chain fittings with illustrations, description and specifications. Write for it today.

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THE MOST COMPLETE LINE OF DROP FORGED WIRE ROPE AND CHAIN FITTINGS



held numerous offices in the Petroleum Section, NSC, including that of general chairman, and was also active in the safety program of the American Petroleum Institute. He was a life member of the American Society of Safety Engineers.

Surviving Mr. Smith are his widow, three daughters and five grandchildren.

## Announce Winners of Films for Safety Awards

FIVE MOTION PICTURES and one sound slidefilm have been chosen by the National Committee on Films for Safety as the outstanding accident prevention films produced in 1951.

Eight additional films were given honorable mention and 14 others were picked for merit awards.

The David S. Beyer Memorial Award, presented annually by the Liberty Mutual Insurance Co. for the best theatrical motion picture on traffic safety, went to Walt Disney Studio for *Motor Mania*.

The committee, which represents 20 national organizations, makes annual awards for safety films in the fields of traffic, occupational, home and general safety.

The complete list of 1951 award winners follows:

### Non-Theatrical Motion Pictures

#### General

**WINNER:** (tie) *Pipeline on Wheels*, produced by Apex Film Corp. for E. I. du Pont de Nemours & Co.

*Tony Learns About Fire*, produced by Southern Educational Film Production Service for National Board of Fire Underwriters.

**HONORABLE MENTION:** *Farm Tractor Safety*, produced by George W. Colburn Laboratory for American Petroleum Institute.

**AWARD OF MERIT:** *The Happy Locomotive*, produced by Stephen Fitzgerald Co. for Baltimore & Ohio Railroad.

*Small Boat Disaster Prevention*, produced by U. S. Navy Photographic Center for U. S. Navy.

#### Occupational

**WINNER:** *The Story of Pierre and Marie*, produced by Crawley Films, Ltd., for Quebec Pulp and Paper Safety Association.

**HONORABLE MENTION:** *Accident Prevention*, produced by Sara for Great Atlantic & Pacific Tea Co. *Not by Chance*, produced by Unihlms for Pennsylvania Railroad.

**AWARD OF MERIT:** *Don't Drop Your Guard*, produced by Aetna Life Abil-



iated Companies for Aetna Casualty & Surety Co.  
*Hauling Logs*, produced by Rarig Motion Picture Co. for Pacific Northwest Loggers Association.  
*It Can Happen to You*, produced by Dudley Pictures Corp. for Union Pacific Railroad Co.

#### Traffic and Transportation

WINNER: *Day in Court*, produced by Cate and McGlone for International Harvester Co.

HONORABLE MENTION: *Borrowed Power*, produced by Pennsylvania State College for AAA Foundation for Traffic Safety.

AWARD OF MERIT: *A Professional Portrait*, produced by Wilding Picture Productions for Automobile Manufacturers Association.  
*Safe Driving Series*, produced by and for Coronet Instructional Films.

#### Home

AWARD OF MERIT: *Accidentally Yours*, produced by Crawley Films, Ltd. for Molson's Brewery, Ltd., Montreal.  
*Fire Prevention* produced by and for Encyclopedia Britannica Films.

#### Theatrical Motion Pictures

WINNER (also David S. Beyer Memorial Award): *Motor Mania*, produced by Walt Disney Studio.

HONORABLE MENTION: *Bandage Bait*, produced by Pete Smith and Metro-Goldwyn-Mayer.

#### Theatrical Trailers

AWARD OF MERIT: *1951 Operation Safety*, produced by Atlas Film Corp. for National Safety Council.  
*Signs of Life*, produced by and for United Film Service.

#### Sound Slidefilms

##### General

HONORABLE MENTION: *Close Shares*, produced by Paragon Pictures for Zurich-American Insurance Companies.

##### Occupational

HONORABLE MENTION: *Get a Grip on Yourself*, produced by Sarra for National Safety Council.

AWARD OF MERIT: *Pass the Word Around*, produced by Spinn & Associates for The Gypsum Association.

#### Traffic and Transportation

WINNER: *Pattern for Tragedy*, produced by Paragon Pictures for Zurich-American Insurance Companies.

HONORABLE MENTION: *Wrong Side — Suicide*, produced by Vogue-Wright Studios for National Association of Automotive Mutual Insurance Companies.

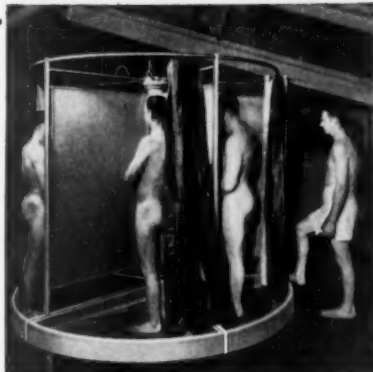
AWARD OF MERIT: *Bike Behavior*, produced by and for Cathedral Films.  
*Willie's Fish Story*, produced by Rinaldo-Hill Enterprises for California Motor Truck Association.

The National Committee on Films for Safety represents the following national organizations:

American Association of Motor Vehicle Administrators, American Automobile Association, American National Red Cross, American

# Solve your shower problem WITH MULTI-PERSON BRADLEYS

- ★ Cut plumbing connections 80%
- ★ Lower water consumption 70%
- ★ Provide added shower facilities in less space
- ★ Install quickly on any kind of floor —including wood



Five-stall shower with receptors. Also made in 3-stall model.

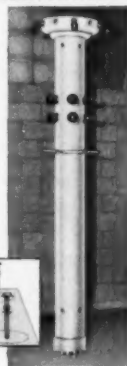
## Economical Group Showers Meet All Modern Washroom Requirements

If you are building, modernizing, or adding to your present facilities, Bradley Multi-Stall Showers will answer your shower problems.

Bradleys are available in 3-stall semi-circular units for against the wall installation and in 5-stall circular units. Each Bradley 5-stall unit performs the service of FIVE conventional single-stall showers, yet requires only ONE set of hot and cold water piping and one drain.

Bradley Showers can be equipped with water receptors making each shower completely self contained. Installation on any kind of floor including wood.

Bradley Multi-Stall Showers are shipped partially assembled ready for quick easy installation. Write for your copy of Catalog 4701CS illustrating the many modern, sanitary, money saving features of Multi-Stalls. BRADLEY WASH-FOUNTAIN CO., 2237 W. Michigan St., Milwaukee 1, Wisconsin.



Bradley Column Showers, like Multi-Stalls, are also ideal for many locations such as factories, mines, camps, schools, field houses, and institutions. Column Showers are shipped complete ready for installation with drain fittings, sprayheads, soap trays and mixing chamber for temperature control.

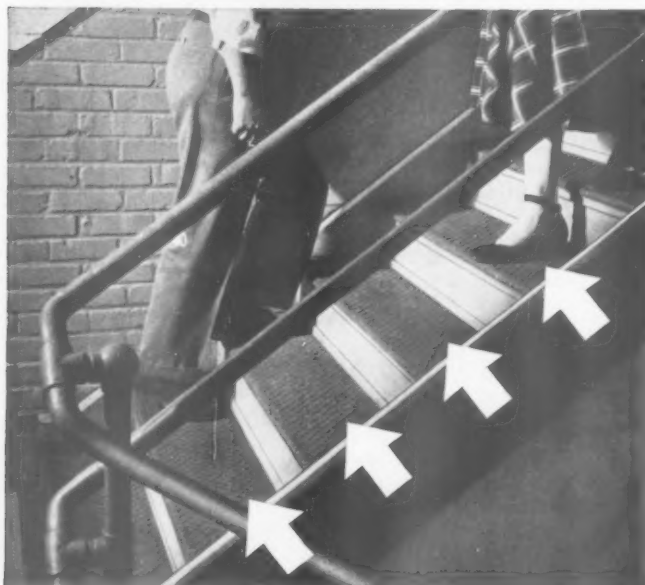
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multi-stall showers

Distributed through Plumbing Wholesalers

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*it's* **FERALUN**



A special cast iron matrix with a diamond-hard abrasive imbedded in the walking surface. That's the Feralun secret of safety. The abrasive, *not* the scoring, provides secure footing—wet, oily or dry. ● That's why you will find Feralun underfoot, wherever traffic is heaviest. For over a quarter of a century, millions of feet of Feralun treads, floor plates and thresholds have been used in subways, railway cars, buses, factories, office and public buildings, even on battleships. This extra-safe, extra-durable flooring will last the life of the structure. Don't slip up on safety! Look into the facts and figures on Feralun.

AM 100

**AMERICAN ABRASIVE** Safety Floorings

**AMERICAN ABRASIVE METALS CO.**  
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Write today for  
**BULLETIN** 4th  
Am

Public Health Association, American Society of Safety Engineers, Association of Casualty and Surety Companies, Association of Safety Council Executives, and Automotive Safety Foundation.

Other organizations represented on the committee are International Association of Chiefs of Police, National Association of Manufacturers, National Association of Mutual Casualty Companies, National Fire Protection Association, National Retail Farm Equipment Association, National Safety Council, U. S. Junior Chamber of Commerce, U. S. Air Force, U. S. Army, U. S. Navy, and U. S. Public Roads Administration.

John B. McCullough, director of technical services, Motion Picture Association of America, is chairman of the committee.

## Soon We'll Be Seeing "Invisible" Dirt

INVISIBLE DIRT and bacteria remaining on clothing and dishes, after washing, can now be made to reveal themselves.

The method was described recently at the University of Michigan by Dr. G. M. Ridenour, Director of Research Projects of the National Sanitation Foundation. For three years, Dr. Ridenour and his staff have been seeking the answer to the question: "Is it as clean as it looks?"

Using the products of atomic energy they have found that they can show even hidden dirt on any surface or in any material. To do this, clothing, eating utensils, or other material is soiled with specific quantities of dirt and bacteria that have been made radioactive. The radioactive quality does not make it easier or harder to wash the dirt from the clothing or utensils. But the radioactive quality does make it possible to detect through photography whether all or a portion of the dirt is removed by the washing.

After washing the soiled clothing or utensils, they are exposed to x-ray film. That tells the story. The dirt and bacteria unremoved by the washing, but invisible to the eye, leave their "atomic autograph" on the film. The photo-

graphic print reveals both the quantity and the distribution of the dirt and bacteria, and answers the question: "Is it clean?"

The method is an improvement of the technique the same scientists reported last year. At that time they used the Geiger counter instead of the photographic plate to determine the efficiency of various washing processes.

The new method is said to furnish measurements that are 98 per cent accurate. To manufacturers and consumers it shows which washing process, detergent, or which machines do the best job under given conditions, and which surfaces are easier to clean.

Dr. Ridenour and staff began their research with radioactive material to measure the effectiveness of home laundry machines. They extended their work to study the removal of dirt and bacteria from dishes and other eating utensils. The results of the laundry machine studies are to be made public by the National Sanitation Foundation in a printed report to be published in April.

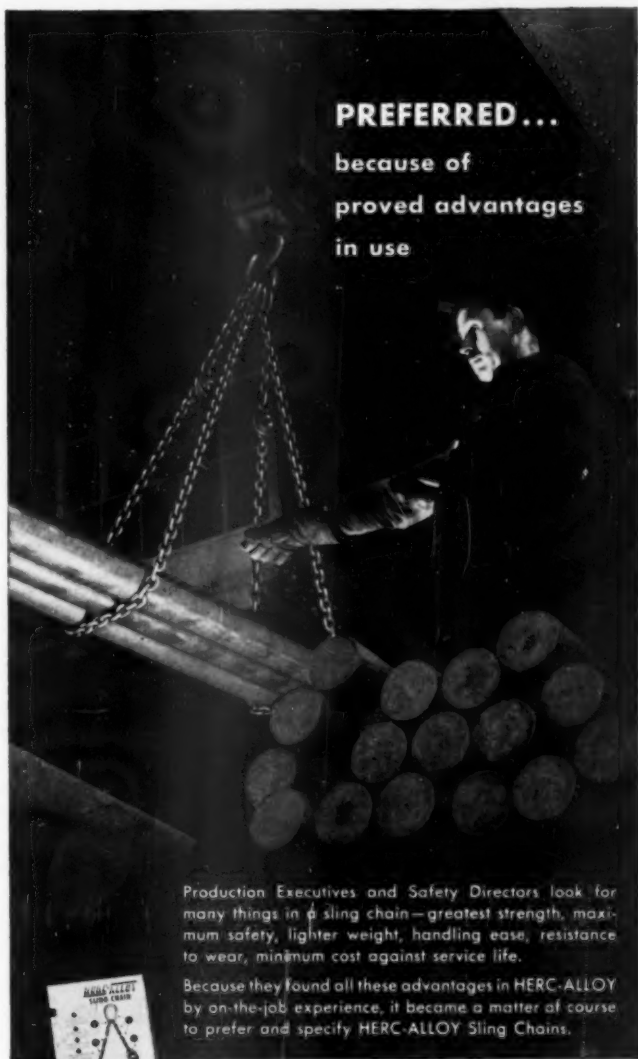
The report on the radioautographic method will be published at a later date.

#### New Booklet on Aluminum Powders & Pastes

*Aluminum Powders & Pastes* is a new manual published by Reynolds Metals Company. It covers the more familiar uses of powdered aluminum in aluminum paints, iridescent auto finishes, roof coatings and the like, also such unique applications as chemical reactions which provide heat without flame, sea markers that help locate downed airmen, bombs whose destructive power is doubled by powdered aluminum, powder metallurgy, surgery, silicosis treatment, and other developments.

Various applications are covered in separate chapters devoted to paints and coatings, pyrotechnics, heat reactions, chemical processing, powder metallurgy, surgery and silicosis. Also, decorative "flitter," plastics, sealing wax, candles, water markers, mold washes, cements, caulking and sealing compounds, heat-reflective

## HERC-ALLOY SLING CHAINS



**PREFERRED...**  
because of  
proved advantages  
in use

Production Executives and Safety Directors look for many things in a sling chain—greatest strength, maximum safety, lighter weight, handling ease, resistance to wear, minimum cost against service life.

Because they found all these advantages in HERC-ALLOY by on-the-job experience, it became a matter of course to prefer and specify HERC-ALLOY Sling Chains.



**Write** for illustrated Data Book No. 3 which contains helpful information on sling chain selection and use.

#### COLUMBUS MCKINNON CHAIN CORPORATION

(Affiliated with Chisholm-Moore Hoist Corp.)

GENERAL OFFICES AND FACTORIES: TONAWANDA, N. Y.

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# KLEINS



201-NE Plier



5233 Klein-Kord Safety Strap



5249 Klein-Line Tool Belt



1945 ADJ Climber



1628-38H Klein Chicago Grip

"Since 1857"

If you've ever been up on a pole fifty feet off the ground—you *know* why the lineman prefers equipment bearing the familiar Klein trademark. For instance—

**Klein Climbers** take him up and down in safety—provide sure footing while he works.

**Klein-Kord Safety Straps** provide maximum safety on every job—the red center unmistakably signals when the strap should be replaced.

**Klein-Line Tool Belts** give the safety, comfort and convenience necessary for fast, efficient work.

**Klein Pliers** help linemen to do any wiring job better and quicker.

Yes, Kleins are the year-round favorites for safety and service—made by a company with a reputation for quality "Since 1857."

#### ASK YOUR SUPPLIER

Foreign Distributor:

International Standard Electric Corp., New York

*If you have not received your copy of the Klein Pocket Tool Guide, write for one. It will be sent to you without obligation.*



Mathias

Established 1857

# KLEIN

& Sons

Chicago, Ill., U.S.A.

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fabrics, water-proof fabrics, synthetic yarn are detailed in the manual.

Other chapters discuss physical properties, chemical properties, testing and evaluation methods.

The book was written, edited and produced by G. W. Birdsall, manager, Editorial Service, Reynolds Company. It is 6 x 9 inch size; contains 55 illustrations, a table of contents and cross index. It will be supplied without charge to technical men and executives who request it on their business letterhead. Write to Reynolds Metals Company, 2500 South Third Street, Louisville 1, Ky.

#### Conference on Housing For Older People

HOUSING THE AGING is the topic for the University of Michigan Fifth Annual Conference on Aging to be held in Ann Arbor, Michigan, July 24-26, 1952.

The three-day conference will consider the housing needs of healthy, chronically ill, confused, and disabled older people living in urban and rural areas. Among the topics are types of housing and living arrangements; architectural designs and costs; hygiene and safety standards; social and economic aspects of housing; and auxiliary services. The conference is designed to serve as a forum for interchanging information and for getting action on the difficult problem of financing housing for the aging.

The conference is directed to national, state, and local planners; physicians, nurses, and public health workers; industrial retirement counselors; welfare and social work personnel; architects, builders, realtors; safety and sanitary engineers; public and private investment and financing agencies; directors of old age homes, nursing homes, hospitals, and housing projects; and to older people themselves who are interested in contributing to the solution of the housing problem of the aging.

Conference registration materials may be obtained by writing to Dr. Wilma Donahue, Institute for Human Adjustment, Room 1510, Rackham Bldg., Ann Arbor, Michigan.

## Bindery Housekeeping

—From page 35

for the gathering operation. If they are allowed to fall to the floor, they become fall hazards. Provide wire baskets for them. Instruct workers to set aside boards that are slivery so they can be repaired or disposed of. After collecting, boards should be sorted according to size for reuse.

**Stripping tape spools.** Their shape makes them a bad fall hazard—provide disposal containers for them.

**Nails.** Enforce strict housekeeping in the carpenter shop to keep nails from getting into the bindery. Lumber that is to be reused should be stripped completely of nails. Waste lumber should be placed in special containers. Skids that are to be reused should be carefully inspected for protruding nails.

**Skids.** Empty skids should be piled flat, one up and one down, in piles no higher than four feet. They should never be left standing on edge. The problem of keeping proper sizes and quantities of skids in each department can be solved by color-coding skids by departments, and establishing the rule that empties must be returned to the department or area indicated by the color. Empties that are to be discarded should be removed to a scrap area at once. Skids to be reused should be examined and repaired before being loaded again. Poorly loaded, defective, and empty skids in work areas are a chronic source of bindery injuries. A carefully thought-out and supervised program for handling skids is of utmost importance to bindery housekeeping.

**Press boards.** Standing them against walls, pillars, machines, and tables is a practice that causes many lost-time injuries. Provide work-height carts with grooved sections at the top and bottom into which pressboards can slide for safe and easy storage.

**Stamping inks.** Cabinets for storing ink containers will prevent many ink spills. Solvents for washing ink off stamps should be kept in fire-safety cans. Self-closing

## HOW MUCH ARE SLIPPING ACCIDENTS COSTING YOU?

### ACCIDENT REPORT

Cause of accident:

*Man fell on a slippery floor.*

Means of prevention:

*Install A.W. ALGRIP  
Abrasive Rolled Steel  
Floor Plate.*



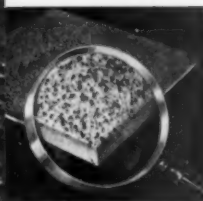
There's an easy, economical way to end slipping accidents that steal man-hours and drag production down. Put positive non-slip protection in your plant with exclusive A.W. ALGRIP Abrasive Rolled Steel Floor Plate.

### NON-SLIP—EVEN ON STEEP INCLINES!



ALGRIP is made by rolling tough abrasive grain (the same kind used in grinding wheels) uniformly as an integral part of the steel plate's upper portion. When you walk on ALGRIP, hundreds of tiny safety brakes grip your feet at every step. Result: It's virtually impossible to slip—even on steep inclines.

### WEAR WON'T WEAR OUT ITS SAFETY!



ALGRIP's safety isn't merely a surface treatment. Note the even distribution and depth of the abrasive grain. As the surface wears, new particles are exposed, so ALGRIP keeps its non-slip qualities for a lifetime. It needs no maintenance. Rolled steel makes it stronger than other abrasive floorings. It withstands hard blows and heavy loads without cracking or breaking. And thinner sections can be used without reducing load carrying capacity.

### Get Full Details of ALGRIP Today

Our new Booklet A-13 gives complete technical details, suggests uses. Write for your free copy. It may save you countless hours and dollars!



**A.W. ALGRIP** ABRASIVE ROLLED  
STEEL FLOOR PLATE

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Other products: PERMACLAD Stainless Clad Steel • A. W. SUPER-DIAMOND Floor Plate • Plates • Sheet • Strip • (Alloy and Special Grades)

Over 125 years of iron and steel making experience.





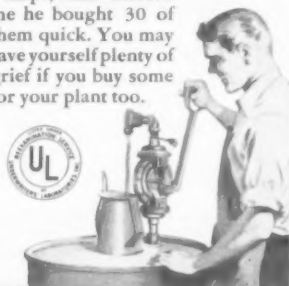
## The one precaution Tom overlooked...

Tom McBride was the best safety engineer our company ever had. He had an uncanny sense of detecting danger, and seemed to do the things necessary to prevent accidents before they occurred. We won three safety citations under Tom's direction. Our plant was clean as a pin.

But then the roof fell in. A worker in the machine shop slipped in a pool of spilled oil, fell and broke his arm—a nasty break at the elbow. A day later a boy in the press room had a similar accident, except he sprained his back. It looks like it may be serious. But the pay-off was the fire in the tool crib. Someone dropped a lighted

cigarette in some oil drippings, and I'm ashamed to tell you what happened. Among other results, it damaged some valuable dies that will take months to replace, and almost lost us an important customer because we couldn't make delivery on time.

Careful as Tom is, he didn't realize that there are better ways to transfer oil than by drawing it through a spigot. I told him about Tokheim Hand Pumps, and believe me he bought 30 of them quick. You may save yourself plenty of grief if you buy some for your plant too.



Order from your dealer, your oil company, or your Tokheim representative. Write factory for literature.



General Products Division

**TOKHEIM OIL TANK AND PUMP COMPANY**

1670 Wabash Avenue, Fort Wayne 1, Indiana

Factory Branch: 1309 Howard Street, San Francisco 3, California

fire-safety cans should be provided for rags used for wash ups.

**Aisles.** Objects left in aisles, causing falls and banged-up shins, accounted for an average of 14 accidents a month in one large bindery. Aisles should be kept wide enough to accommodate the continual flow of stock and hand-and-power trucks; they should be clearly marked; and definite instructions should be given to keep material outside the aisle markings. In addition to operating efficiency, clear aisles are also important to fire protection.

**Paper dust** damages machinery and may be an explosion hazard. It should be removed at regular intervals with portable vacuum cleaners. Sewing machines and other bindery equipment should be covered when not in use.

**Spraying**—to lacquer book covers and tint book edges—presents an explosion and fire hazard in the bindery. Most commonly used sprays contain highly flammable acetates, alcohols, toluene, and butyl acetate. Spraying should only be done in approved spray booths that are well ventilated and exhausted. Booths should be cleaned regularly. Splashes, drippings, and a residue in the exhaust ducts or on the booth floor and walls create the possibility of fire and explosion. Cleaning spray booths is made easier if surfaces are thinly coated with a heavy grease, liquid soap or volcanic ash (which prevents the spray liquid from hardening) and then covered with kraft paper. The paper should be changed frequently; otherwise it may absorb enough spray liquid to increase the explosion and fire hazard. The grease layer should be scraped off with non-sparking tools. Scrapings should be placed in metal containers, wetted, and burned. Compressed air should never be used to blow down the interior of booths because the air and spray residue creates an explosive mixture and a static electricity charge.

**Walls, windows, and lights.** When illumination is poor, due to poor lighting, dirty windows and walls, there is a tendency to allow dirt and waste to accumulate in dark corners and under machines. Walls, ceilings, overhead pipes, lighting fixtures should be vacu-



umed, washed, painted to insure a maximum illumination—exposing poor housekeeping conditions and providing an incentive to keep the bindery clean. Painting machines and dark corners will also discourage accumulations of waste and dirt.

*Lockers, toilets, drinking fountains.* Janitorial service should be provided to ensure that these facilities are kept hygienic, clean, and attractive. Rubbish cans and ash trays should be provided in toilet, locker, and washrooms. Floors, bowls, water fountains and basins should be cleaned and disinfected daily. Plentiful supplies of towels, soap, paper cups, and toilet paper should always be kept on hand. Clean, pleasant locker and toilet facilities not only decrease accident and health hazards but are a great aid to employee morale.

When good housekeeping is maintained in the bindery—as outlined above—you can expect reductions in waste and injuries. One bindery, a Council member, by instituting a thorough-going housekeeping program, reduced workman's compensation costs due to poor housekeeping over 60 per cent. Bindery housekeeping pays!

### He Sparks the Program

—From page 25

safety engineer, and Joseph M. Graziano, training department illustrator. Unlike many cartoon characters, Sid is not a horrible example or a fall guy. His messages are on the positive side, in keeping with the plant program.

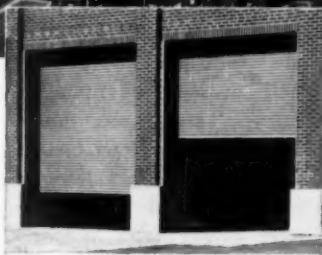
Ford took over the huge government-owned plant in October 1950 under a letter contract to the United States Air Force to build engines to power the B-36 Intercontinental bomber. Ford engineers and production men began reactivation of the magnesium foundry in January 1951 when it became apparent that it would be impossible to subcontract the required volume of magnesium castings. The first test casting was poured May 10, 1951.

While operations in the Magnesium Foundry moved toward production, the safety program was developing simultaneously. Since the pouring and cleaning of mag-

## COVERS EVERY NEED for efficient, space-saving doors



**Cost-Cutting Doors  
for All Types of  
Buildings Shown in  
New Kinnear Catalog**



Above is a typical city and some of its many different buildings equipped with Kinnear Rolling doors. In similar industrial, commercial and public buildings *throughout the world*, the famous interlocking steel-slat door (originated by Kinnear) has proved its many advantages. Coiling out of the way with smooth, vertical action, it offers maximum efficiency, protection, long service life and low maintenance. Users have found this increasingly true through more than half a century. Your free copy of this new catalog will give you latest, complete details on Kinnear Rolling Doors. Send for it today!

### The KINNEAR Manufacturing Company

FACTORIES  
1720-40 Fields Avenue  
Columbus 16, Ohio  
1732 Yosemite Ave.  
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Offices and Agents in Principal Cities



**KINNEAR**  
ROLLING DOORS

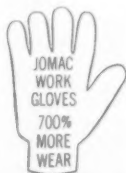


## NEVER ABSENT WITHOUT NEED

He has proper hand protection. Jomac Work Gloves help protect the man on this job from painful burns. They'll help keep him on the job, too. Jomac Gloves resist heat and cold, protect against sharp edges. And Jomacs are washable, flexible, reversible and long-wearing. They outlast ordinary gloves 700% or more.

### SPECIFY JOMACS FOR BETTER PROTECTION, LONGER WEAR

We guarantee the consistently high quality of Jomac Work Gloves, because cloth and gloves are made by skilled craftsmen in our own plant.



# C. WALKER JONES CO.

6135 N. LAMBERT STREET • PHILADELPHIA 38, PA.



Made similar to a doctor's coat, the tear-off jacket has a rip cord which in the above picture is being pulled by the operator on a magnesium polishing and grinding job. The cloth is 11-ounce twill, flameproofed and has elastic around the cuffs to prevent "mag" dust collecting under cuffs. Because of the fine dust safety glasses and a shield are worn.

nesium is inherently dangerous because of the physical properties of the metal, special attention was given to possible danger spots.

Clifford L. Wheeler, manager of the Aircraft Engine Division Foundry, has insisted that each person be made individually responsible for safe practices. Supervision is kept in close touch with the safety program through a weekly bulletin distributed each Monday morning. Every foreman is required to check each day to be sure that his men are working according to approved methods and are wearing the safety equipment issued.

Since many employees have had little previous experience in magnesium operations, each new man is given a thorough indoctrination. This consists of individual instruction concerning the hazards of the job, the safety equipment used, and the prevention and control of magnesium fires.

The foundry safety department in conjunction with the Aircraft Engine Division fire department, has given all foundry employees a complete course in the suppression of fire and each man actually ex-

tinguishes a magnesium fire. Fire causes and prevention are stressed to make sure that all employees understand the nature of magnesium fires.

Each week a different National Safety Council film is shown to all hourly employees, and the 15 minutes required for the film has paid dividends. Current plans include the showing of one film a week until a total of 16 subjects has been covered.

New employees are shown where safety equipment is located, including the safety shoe store and the cleaning stations for safety glasses. The opening of the safety shoe store was attended with considerable publicity, including a demonstration of driving an industrial truck and a loaded V-dump sludge cart over sample shoes. The "Foundry Toe Savers Club" sent flowers with their congratulations on the opening of the store. Sales of safety shoes have been brisk and nearly all hourly and salaried personnel have purchased them.

Realizing the importance of housekeeping in a magnesium foundry, a broad program was launched to remove any hazards that might result from poor housekeeping. Here, the positive features of the program have been supplemented by a negative incentive in the form of a poster announcing that the department displaying it has received the "8 Ball Award" for poor housekeeping. The award has been in existence for several months but to date it has not left the safety department. No department has yet failed to meet the high standards of housekeeping.

There has been considerable development in the foundry in the use of safety devices and specialized protective clothing. Men at pouring stations are furnished flame-proofed jerseys and dungarees in addition to gloves, spats, and clear plastic face protectors. A special pouring device was designed by Ed Cronin, general foreman, and L. M. Spencer, superintendent of Melt and Pour. This device furnishes a positive control in pouring through the use of a worm gear and wheel to control the amount of metal poured. These men also designed a puddler for

Catch your workers at the most receptive moment — when they pause for a drink of water. Then is the time to bring your safety messages to their attention — while they're relaxed: not rushing past a familiar bulletin board, or tearing open a pay envelope, or hurrying to punch the time clock.

Statistics show that the average worker takes a drink of water 3 or 4 times a day. This is your opportunity. Put a message on the face of his AJAX Cup. He can't help but see — and read — it.

## His most receptive moment



He gets a drink of water several times a day  
**Put your Safety Message**  
in his hand on an AJAX CUP



### Builds Plant Morale

Getting your safety message read is but one way the use of these clean, crisp AJAX paper cups helps increase the morale of your employees. The use of these cups also improves their health through combating the hazards of transmitted infections and adds to their enjoyment with comfortable, readily accessible drinking facilities.

Write today for the full story on this Complete Safety Drinking Service Plan — see handy coupon. Bring your workers better health and sell your safety messages at the same time.

## AJAX® CUPS

UNITED STATES  
ENVELOPE COMPANY  
General Offices  
Springfield 2, Mass.

14 Divisions from Coast to Coast



Tell me more about your Safety Message Plan. Send me without obligation the whole story with samples of imprinted AJAX Cups.

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Firm \_\_\_\_\_

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# "SAFE...for SURE!"



with a



## PERSONAL - SAFETY PADLOCK



### For Electrical Repairmen, Boiler Cleaners, etc.

When a man locks his Corbin Personal-Safety Padlock on a switch or valve, he knows he's protected against its being prematurely turned on. No chance for accident... no risk of being a forgotten man! Each electrical repairman, boiler cleaner, etc. should have his own Corbin No. P65R Padlock. Made especially for safety purposes, they have a solid die cast case, a shackle-opening height of 2 3/4 inches, and an attached metal identification tag. Disc tumbler mechanism has 200 regular key changes and 700 possible changes when so required. Corbin P65R Padlocks can be keyed alike or master-keyed. We will gladly help you work out a Personal-Safety system based on your specific needs. For further information without obligation, write to:



**CORBIN CABINET LOCK**  
DIVISION

THE AMERICAN HARDWARE CORPORATION • New Britain, Conn.

## SAFETY ENGINEER

A multi-million dollar corporation in the synthetic fiber field, currently building plants in northern Alabama and Florida, has an immediate opening for an individual having several years' experience in Safety Engineering, preferably in the chemical or synthetic fiber fields. Must be able to set up and administer complete Safety Program.

Apply in detail to

**Box 424 NATIONAL SAFETY NEWS**

use at the heating furnace that enables the furnacemen to agitate the metal while standing clear of the furnace.

Cleaning magnesium castings is frequently a trouble spot so special clothing was designed for use at cleaning stations. A special jacket, known as a "tear-off coat," is furnished to each man at the cleaning station in addition to his glasses, gloves, face protector and flame-proofed trousers.

This jacket is designed so that it may be removed in one quick motion without having several fasteners to unhook. The coat is open at the back and fastened by two snaps that can be opened immediately by a pull on a strap on the left shoulder of the coat. An elastic wrist band prevents accumulation of filings inside the sleeve. This coat was designed by L. M. Werk, superintendent of Cleaning and Heat Treat, and Harvey Johnsen. All personal safety equipment has been chosen for comfort as well as for maximum protection.

Every issue of *Aircraft Engine News*, the bi-weekly employee newspaper, carries an article dealing with some phase of the safety program. These articles have made "Safety Sid, the Foundry Kid" a well-known person to the whole Division and have made all employees proud of their program and record.

## The President's Medal

Awards made by the National  
Safety Council for successful ap-  
plication of artificial respiration

ROBERT WELDON FORLOINE,  
plant foreman, Electro Metallur-  
gical Co., Ashtabula, Ohio—gas  
asphyxiation.

CLIFFORD W. MURPHY, line  
foreman, Public Service Company  
of Indiana, Ind., Rochester, Ind.  
—electric shock.

JAMES L. OHMES, machinist  
helper, Sinclair Pipe Line Co.,  
Humboldt, Kan.—gas asphyxia-  
tion.

## Association

—From page 29

ferences in British Columbia. In addition, Scotty is a familiar figure at such regional meetings as the annual Western Forest Products Safety Conference and such national events as the National Safety Congress. Finally, regional meetings of all plant safety committees in six areas of British Columbia were held during the year just past.

6. The Association conducts a Supervisor's Accident Prevention Course for member mills. It consists of eight sessions and makes extensive use of National Safety Council training materials. More than 800 supervisors have had this training.

The BCLMA holds the first of the Council's recently developed Group Service Memberships. Under this plan, the larger manufacturers hold direct Council membership, but the Association covers all smaller companies and makes Council services available to them.

That brief list omits many of the duties regularly or irregularly assigned to Scotty's department. It also has a sort of bureaucratic ring to it, which gives a false impression. The outstanding thing about Scotty to me is the fact that he is known throughout the industry, that when you walk, as I did, through the sawmills, the people know him and are glad to see him—meaning by people, the tobacco-chewing sawyers, the departmental foremen, and the dignified gentlemen of the front offices of the companies.

Out in the plants, they yell "Hiya, Scotty," and in the offices his name gets entree to the president or the superintendent. Maybe it's an intangible that, walking with Scotty, you get the feeling that safety "belongs" in this industry—and if that is an intangible, I'll trade it for the tangible earmarks of prestige and authority I've seen safety men carry in certain other situations and industries.

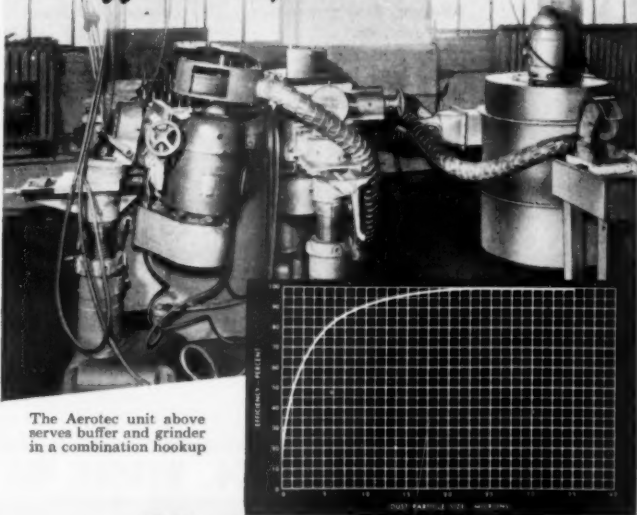
I said Scotty wasn't the big wheel or the high brass. Head of the whole Association staff, and therefore Scotty's boss, is L. R. Andrews, executive vice president.



## INTEGRAL DUST COLLECTORS

quickly clean air of harmful dusts

*Efficiently* at low cost



The Aerotec unit above serves buffer and grinder in a combination hookup

*Make your* grinding, buffing, polishing, cutting operations clean and safe

You can avoid costly losses in man hours and production by eliminating the dust nuisance at the machine with the highly efficient Aerotec Integral Dust Collector. Protect your employees' health by keeping your plant free from annoying and hazardous dusts.

This compact, series-type collector removes large and fine dusts effectively over a wide range and deposits the dusts into hopper bins. Easy, infrequent emptying of this bin is the only maintenance required for long periods. The Aerotec Integral is composed of a cyclone primary for larger dusts and a secondary inner element that precipitates the finer dusts by means of multiple, small-diameter tubes. Unlike impingement type filters which plug up and cause a gradual reduction of suction at the hood, the Aerotec tube design maintains a constant pressure drop.

Our engineers, backed by years of experience in solving industrial dust problems, are prepared to assist you. Let them show you how to get the dust collection efficiency indicated by the chart above. Call or write today.

Project Engineers

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I wish I could tell you something about him—but he is clearly the type of executive who believes in delegating authority, and my education was one task he delegated to Scotty, along with the rest of the safety job.

On the membership, as distinct from the staff side, Scotty's boss is M. F. Ryan, managing director of the Canadian Western Lumber Co., Ltd., and chairman of the Association's safety committee. I tried, perhaps not too subtly, to needle Mr. Ryan to explain why the Association should take accident prevention as so large and substantial a project, considering the fact that most trade associations are content to give it far less attention.

Ryan doesn't needle—at least I couldn't needle him. His responses were quiet, unhurried, unexcited. The question of relative standing with other associations didn't seem to interest him. On the other hand, as he explained with a kind of courtly patience, it was, as far as he was concerned, clearly demonstrated that the British Columbia Lumber Manufacturers Association safety program had prevented injuries, speeded production, cut costs, earned compensation rebates of substantial proportions. Having said that much, he was, he made it clear, completely satisfied in his own mind that the Association's policy was wise and deserved continuation. It was just as simple as that to this quiet, firm, intelligent operating executive.

The day after the conversation just reported, I was at Ryan's mill in Vancouver, attending one of the five Safety Conferences referred to in point No. 5 above. These conferences have a standardized format. The morning is devoted to a fast-paced inspection of the host plant by some 50 safety men from member companies of the Association.

This is no genteel plant tour, in which the visitors sedately plod around behind a guide, politely expressing their admiration of the plant and its facilities and methods. It is, instead, a joyous and vigorous attempt by all the visitors to find everything possible wrong with the plant, to take lengthy notes, and then devote a substan-

tial part of the afternoon to flaying the local safety men and local management by reviewing the shortcomings of the establishment safetywise.

The detachment I was following had a most disconcerting habit of detouring up what seemed to be blind alleys in search of bad lighting, defective flooring, outdated fire extinguishers or reckless truckers.

The process sounds harsh, and the role of host is not an envied one. But the hosts have the satisfaction that within a couple of months they will be stalking through another man's plant, itemizing his failures.

And all concerned, host, visitors and Association men know one more thing about these visits—they have alerted the industry to look for hidden flaws, to avoid procrastination in maintenance, to study and search out all points of weakness or possible weakness. Certainly, the lessons are most forcibly driven home to the victim-hosts, but the visitors, knowing that they will soon be attacked in the same way, also gain both insight and a personalized incentive for tightened inspection and improvement in his own plant.

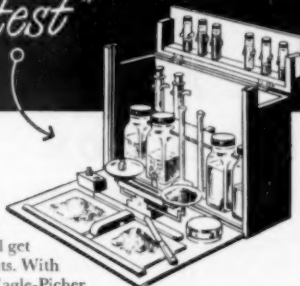
On the day I joined the party, one of the more joyous and ruthless inspectors was Tommy North, safety director of Alaska Pine, the current president of the Western Forest Products Safety Conference.

I had been over one of Tommy's sawmills the day before, had heard the stories of his contributions to the spectacular aspects of safety promotion work. They tell of Tommy, standing at the gate in dark glasses as shifts change, tin cup in hand, peddling pencils, and getting across the eye protection story. At the entrance to the mill we visited was Tommy's brag, blazoned on a huge canvas sign, stretched high above the entrance road—"The Safest Workers in B. C. Work at A. P."—A. P. being, of course, Alaska Pine.

It was men like Tommy North in scores of companies in the area that made the Association promotion of May, 1951, a whirlwind success. It was nothing particularly new or brilliant—a safety week, with the goal of stopping all acci-



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dents for the week, with flags flying above the plants as long as no accidents occurred. Local plant promotions carried out the theme, and, though there were some accidents in the week, the rate for the participants was sharply below normal. And when I arrived on the scene, many plants were still flying no-accident flags, still beating the drums, long after the week was history.

I want to mention one other personality in the British Columbia situation, though he is not a member of the Association or its staff. He is Arthur Francis, top safety man for the British Columbia Workmen's Compensation Board. He is the nearest thing I have encountered in real life to the idealized portrait of the superior British civil servant of literature.

He has none of the flashing wit of a Tommy North, none of the air of quiet, solid command of an M. F. Ryan, none of the exuberant friendliness of a Scotty Allison. I wouldn't be surprised if I had met Arthur Francis a couple of times at National Safety Congresses and promptly forgot about him. But at one Congress I talked to Arthur, and after that I couldn't forget him.

The Canadian side of the border sees the governmental safety man in a position of influence and authority far beyond what is typical in the States. When the Arthur Francis look worried, the industry and association men swing into action. The government men start setting up standards, and the industry men rally, not for combat but for cooperation.

If Arthur Francis typifies his kind, our Canadian friends are fortunate. He is, clearly, the kind of man you could call on and call down if you thought he was in error, feeling sure you'd win your argument if you were right. But behind a surface of self-effacing modesty and great reasonableness, you sense a tough core of stubborn, incorruptible strength to fight when fight he must—a strength that has nothing in common with a type of arrogant, opinionated authority with which many of us are far more familiar.

And it is perhaps the best of all comments on the British Columbia

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situation that men like Arthur Francis and Scotty Allison are close teammates, each recognizing the other as ally, not enemy, in the job they are trying to get done.

### Complete Rush Job With Few Accidents

ON THE OUTSKIRTS of Amarillo, Texas, men of the Del E. Webb Construction Company in a few months changed the Panhandle's horizon. Here they erected 221 symmetrically set 23-room dormitory buildings and 13 messhalls to accommodate the 15,000 men at the Amarillo Army Air Force Base.

For safety on this rush job the Award of Honor of the Tulsa District, Corps of Engineers went to the company. With an average force of 2,100, the project had 14 disabling injuries in more than



1,300,000 man-hours worked. The Webb Company's rate was 7.6 as compared to more than 10 for contractors and government employees of the Tulsa district and approximately 33 for construction work in that part of the country.

In accepting the award, President Del E. Webb praised the cooperation of the Engineers which had made the record possible.

Miniature reproductions of the certificate, shown in the above illustration, were enclosed between sheets of acetate and given to key men who had figured prominently in the safety program. On the reverse of the certificate is an aerial view of the project.

Education covers a lot of ground, but it doesn't cultivate it.

National Safety News, May, 1952

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Reduction of costly, crippling injuries...

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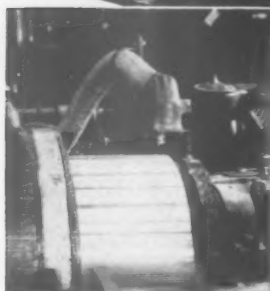
Employers Mutuals write: Workmen's Compensation-Public Liability-Automobile-Group Health and Accident-Burglary-Plate Glass-Fidelity Bonds-and other casualty insurance. Fire-Extended Coverage-Inland Marine-and allied lines. All policies are nonassessable.



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for GRINDING DUSTS  
with this . . .*



**Torit Door Fastener**

The sturdy and efficient door fastener used on Torit cabinets is available for use on your own products. Strike plate either flat or angular. Write for quantity prices.

## **TORIT DUST COLLECTOR**


Poke him off balance with your left, then let him have it with your right. That's good boxing and, in the setup pictured here, good dust collecting.

On this commutator grinder a problem of turbulence and heavy dusts was solved with a Torit No. 84 Dust Collector and dual hooding. Here the lower hood sort of pokes the dust off balance so it's a sucker for the one on top . . . and dust no longer prevents accurate turning of the commutator.

Torit has been solving dust problems like this for forty years. Our experience and know how are at your command . . . so bring your dust problems to—

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—by protecting those employees who are using dangerous, old fashioned hand, foot and bar methods of closing hopper bottom car doors with latob-type locks. Prevent ruptures, strained backs, smashed fingers and other serious injuries by finding and using the Prescott Safety Tool. It provides the job safe and easy and also saves time. It's your responsibility. Write today for free folder.

**The Trumbull Mfg. Co.**  
Warren, Ohio

## **Industrial Health**

—From page 52

it is gradually being realized that this is not a sufficient answer.

There is no general agreement on permissible noise levels as related to the frequency spectrum of noise nor is there any general agreement as to standard techniques for measuring noise intensity and frequency.

On the medical side there is no agreement as to standard procedures for audiometric testing nor for standard methods of calibrating the instruments used. Even less is there agreement on standards for the interpretation of audiograms after they are taken or proper medical programs for the control of hearing loss in noisy trades.

The problem of the compensation of hearing loss is almost entirely untouched.

The problem of hearing loss is complicated by the fact that loss of hearing is a natural progressive process and increases with age in all people and at variable rates depending on the person. Not nearly enough is yet known about the nature of the natural hearing loss and the means of differentiating it from the hearing loss due to excessive noise.

It is also not well known how to distinguish between temporary hearing loss which may occur because of exposure to excessive sound and be completely recovered and permanent hearing loss from the same source.

An over-all noise level of 90 decibels has been suggested as a permissible limit but there is enough information now available to show that noise in certain frequencies is more harmful than in other frequencies, and in particular that noise in the upper and middle frequencies is more damaging than low frequency noise. For this reason an over-all noise level is not a sufficiently accurate measure of the exposure since high intensity high frequency noise of a high-speed riveter is very different in its energy make-up from the almost equally high intensity but relatively low frequency noise of a typical ventilation blower.





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## Only ZORBALL (of all absorbents) brings you these extra benefits

**I**MAGINE the lasting safety, reduced cost and improved "housekeeping" that will come your way with these three outstanding features of all-purpose Wyandotte ZORBALL:

First, ZORBALL (a different absorbent made only by Wyandotte) does not cake or break down to dust. Nor can it be tracked all over your plant.

### ***Lasts longer, cuts costs***

Second, ZORBALL continues to be skidproof even after absorbing saturation quantities of oil, paints, fats, chemicals or water. This continued effectiveness means longer-lasting protection against slipping and skidding accidents.

Third, ZORBALL can be swept up easily, in just half the time it takes to sweep or scrape away absorbing materials that become soft, sticky, greasy. And, after drying out, it can often be used over again!

Ask your Wyandotte representative to show you how **Zorbball keeps floors safe longer . . . and reduces absorbent costs.** He will also give you information about other Wyandotte products designed for better cleaning and maintenance. *Wyandotte Chemicals Corporation, Wyandotte, Michigan; also Los Angeles 54, California.*



Largest manufacturers of specialized cleaning products for business and industry



Helpful service representatives in 138 cities in the United States and Canada

National Safety News, May, 1952

The type of noise produced by forge or punch press operation may present an entirely different problem. These noises reach a peak intensity and drop off so rapidly that the usual sound level meter or octave band analyzer will not have time to react and the measured sound levels from such devices may be very appreciably lower than the actual maximum sound levels. In one instance the sound level from a punch press, as observed by the noise level meter, was between 110 and 115 decibels. When this same punch press operation was recorded on a tape recorder and later analyzed by means of oscillograph, the maximum intensity observed was around 130 decibels. This is a level which would cause pain and traumatic injury if it were continuously operated. Since there is no sensation of pain in listening to a punch press operation of this sort, it is likely that the ear also does not respond rapidly enough to record the peak intensity.

The control of noise at its source is now being intensively studied. There are practically no data available on control at the source either by quieting the operation of the machine or by substituting less noisy operations.

Something more is known about control by the isolation of noisy processes by the use of acoustical materials for enclosures and by segregation in remote areas so that a minimum number of workers are exposed.

Control by the use of personal protective equipment has been practiced for a long time but their utility has still not been generally evaluated. This matter is being studied by the Subcommittee on Noise in Industry of the Committee on Conservation of Hearing of the American Academy of Ophthalmology and Roentgenology.

### **Bladder Lesions from Aromatic Amines**

*Bladder Lesions from Aromatic Amines, Statistical Considerations and Prevention.* Mario Barsotti and Enrico C. Vigliani. The Archives of Industrial Hygiene and Occupational Medicine 5:234-241 (March, 1952).

THIS IS A CONTINUING study of which the first report was published in 1937. The authors are

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concerned with the employees of a dye plant and regular cystoscopic examinations were instituted after the discovery of two bladder tumors in benzidine workers in 1931.

Of a total of 902 workers in the plant between 1931 and 1943, 202 were examined cystoscopically and many of them repeatedly so that the 202 were examined a total of 630 times. These examinations resulted in the discovery of 18 carcinomas, 16 tumors and 73 other lesions which had not yet become tumors. They also permitted the observation of the progression of a congestive lesion to a tumor in exposed workers.

The major products of the plant were benzidine, beta-naphthylamine, alpha-naphthylamine and aniline. Smaller quantities of nitrobenzene derivatives, nitrochlorobenzene derivatives, toluidines, anisidines, xyldines, chloroanilines and phenetidines were also made.

The aromatic amines that produced carcinomas and are really dangerous were beta-naphthylamine and benzidine. Alpha-naphthylamine is also considered dangerous but probably because it contained about 3 per cent of beta-naphthylamine as produced.

More than 100 workers engaged in the production of aniline and its homologues were examined but none showed any carcinoma and only one presented a tumor. This tumor may have been due to phenylglycine rather than to aniline.

These studies do not support the idea that heredity plays any great role in the production of tumors due to aromatic amines. Only two of 34 cases showed any previous family history of tumor. The site of these tumors was always in the bladder.

Acute poisoning by the aromatic amines is not of any significance in production of tumors. There were numerous acute poisonings in the aniline department but no tumors developed. The minimum period of exposure to any of the amino bases before the development of the tumor was four years and apparently what is required is a rather long continued but not necessarily very high exposure.

Tumors have been observed developing sometime after removal from exposure to the aromatic amines. There were several individuals who developed tumors after five years in agricultural work after leaving the plant and tumors appeared in some instances more than 20 years after leaving the exposure. These facts have convinced the authors that there is little if anything to be gained by rotating workers in the production of benzidine and beta-naphthylamine.

They are more impressed with the possibility of removing the exposure to the amines and leaving the workers where they are. The very best prevention, of course, is the production of non-azo dyes. When this is not possible, derivatives should be chosen which do not form light fluffy powders but which form heavy crystalline compounds. The process, of course, should be mechanized and carried on in a closed system to reduce the exposure to a minimum. Procedures in handling the materials in solution or as semi-fluid pastes rather than as solids should be chosen in order to reduce the dispersion of dust.

Great emphasis should be placed on industrial housekeeping and personal cleanliness of the workers.

In spite of the fact that their cases of tumors do not show familial history of cancer, they avoid workers in this area who show family history of cancer.

The workers are not rotated, they are followed as closely medically as possible and are carefully trained in the technology of the manufacturing process and the dangers to be avoided.

### Ultrasound

*Ultrasound and Industrial Medicine* by Horace O. Parrack, Industrial Medicine and Surgery 21:156-164 (April, 1952).

IT HAS BEEN STATED many times that exposure to ultrasonic waves may result in neuromuscular incoordination, loss of the ability to do mathematical problems and complete loss of capacity to perform voluntary acts. With the development of jet propulsion for

—To page 123



## New WELDING HELMET

with Outstanding New Features

**Completely New Type of Helmet.** The one-piece helmet shell is high-compression molded of laminated fabric, phenolic impregnated. This thermosetting material, by being more resistant to high heat and much less moisture absorbent, will hold its shape and weight far better than the ordinary vulcanized fibre. Its tough surface withstands weld spatter. It has been tested at 3000 volts against electrical conductivity. It is strong, smooth, easy to clean, and far more attractive in appearance.

**New Lens Holder.** The cover glass slides out from the front of the helmet, without disturbing the filter lens. There are no gaskets or other parts to come loose. Inner and outer metal lens frames are press-fitted and riveted to the shell. Both lens and

cover glass are held securely but flexibly by steel springs. The filter lens is replaced from the inside, also without the use of tools.

Before shipment, all helmets are checked for light leakage against high powered light.

**Headgear** is of smooth plastic, easy to wash and sterilize. It is quickly adjusted (and then held firmly) to any head size. Oval in shape, it follows the natural outline of the head. A cork-padded sweatband, inexpensive to replace, is held by snap buttons. The shell is hinged from the sides of the headgear on manually adjustable friction pivots which allow easy raising and lowering, yet their concealed springs hold the helmet in any desired position.



One-piece molded plastic shell swings on adjustable friction pivots



To replace, cover glass slides out without disturbing the filter lens

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Provide comfort underfoot.

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Ideal for use around machinery. Keeps the feet off cold, damp floors.

Lies flat.

Substantially constructed for long service.

Beveled ends prevent tripping.

Grooves allow drainage.

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Any width up to 42 inches.

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## And Note the Goggles!



ABOVE ARE MEMBERS OF the National Safety Council's Advanced Training Class photographed on a visit to the Electromotive Division, General Motors Corp., at La Grange, Illinois, last January. With eyes protected for the plant trip, they pose beside one of the new Diesels.

From left to right they are:

Lyman G. Schafer, Michigan Gas Storage Co., Jackson, Mich.

James L. McGregor, St. Joseph Lead Co., Bonne Terre, Mo.

Dwight W. Brown, United Steel & Wire Co., Battle Creek, Mich.

George R. Merriman, Southern Kraft Division, International Paper Co., Mobile, Ala.

Lloyd H. Pahl, Marathon Corp., Rothschild, Wis.

George A. Sheldon, Hercules Powder Co., Port Ewen, N. Y.

Joseph Legge, Dominion Iron & Steel Co., Ltd., Sidney, N. S.

Allen Ater, Western Cottonoil Co., Abilene, Tex.

Leo Johnson, Deere & Co., East Moline, Ill.

Joseph L. D. Noel, Canadian Car & Foundry Co., Ltd., Montreal.

George R. McCormick, chief, Special Study Section, Industrial Hazards Branch, Bureau of Labor Statistics, U. S. Department of Labor, Washington, D. C.

Lloyd Utter, director, Industrial

Health and Safety Division, UAW-CIO, Detroit, Mich.

W. B. Billingsley, Sylvania Division, American Viscose Corp., Fredericksburg, Va.



### E M ALFON \* SINGER'S INSULATED GLOVE

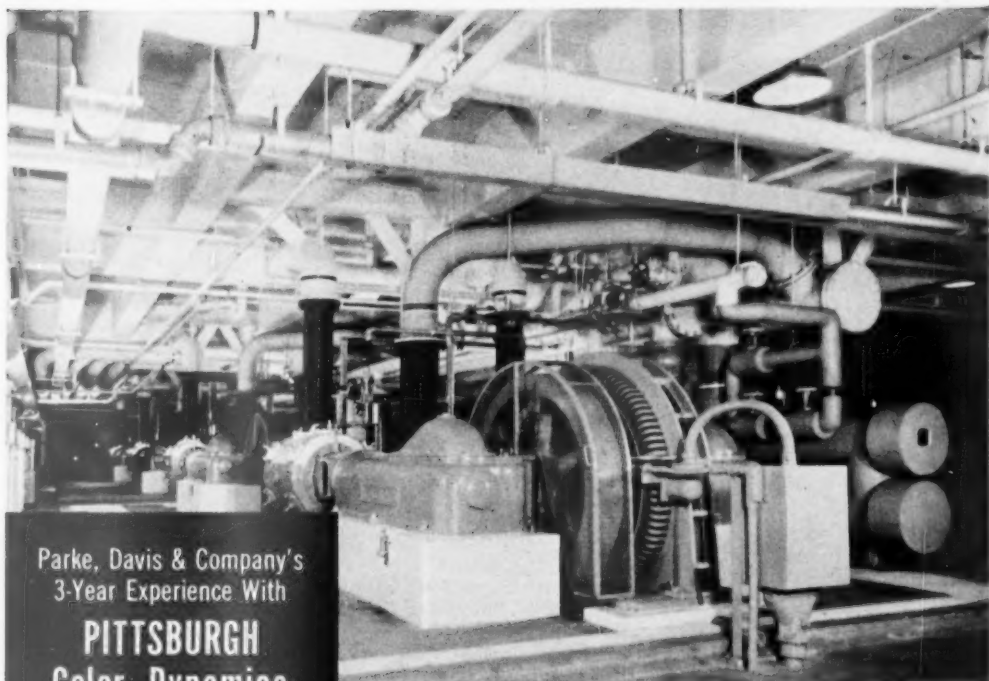
A new kind of glove (pat. app. for) ideal on hot jobs that do not exceed 700 degrees. Made from three thicknesses of material: Outer layer of terry cloth, treated to make it flame-resistant; inner layer of wool and asbestos for added insulation; and third layer (next to skin) of soft, fleeced cotton. This combination gives flexibility and long wear. Thousands of pairs have been sold—it has proven its worth on the job. Fine for outdoor cold weather welding.

If not available from your safety equipment dealer, write us for information and prices. Also—ask for literature on our complete line of safety gloves.

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**PITTSBURGH**  
**Color Dynamics**  
Shows Greatly Increased  
Operating Efficiency!

**Modern scientific painting system which puts color to work  
contributes also to improvement of work morale  
and attendance in Antibiotics Division.**

**CONVINCING PROOF** that Pittsburgh COLOR DYNAMICS contributes to production efficiency and employee morale is offered by the three-year experience of Parke, Davis & Company, Detroit, prominent manufacturer of pharmaceutical products.

● **In the summer of 1948**, Parke, Davis & Company completed a new building specially designed and splendidly equipped to manufacture antibiotics. Chloromycetin, a new drug with global demand because of its efficacy in combating many types of virulent diseases, is the chief product made in this new building.

● **The interior of this mammoth structure**—with its batteries of tanks, its miles of code-marked pipes, its series of laboratories and packaging rooms—was completely "color engineered" according to principles of COLOR DYNAMICS.

● **Just how this modern painting system** has aided production and morale is best expressed in this recent

comment of W. H. Mohrhoff, Superintendent of the Antibiotics Division:

● **"When this new building** was completed three years ago, we established production standards which were based upon such physical factors as new and better equipment and improved processes. We also took into consideration the greater amount of natural light the design of the new building gave us. The one intangible we were unable actually to measure was the purposeful use of color.

● **"Our records show that production efficiency** has averaged nearly thirty per cent greater than our estimate based on the tangible factors. At times it has been up sixty per cent. Much of this increase can be attributed to COLOR DYNAMICS.

● **"At the same time, our attendance** has been better than that in similar departments. There can be no better evidence of what our workers think of COLOR DYNAMICS than the many requests for transfer to this

building. Even laboratory workers seek to be transferred because they recognize they can do more and better work—with less nervous tension and physical fatigue.

● **"Our experience with Pittsburgh COLOR DYNAMICS** has fully confirmed our opinion that color, properly applied, can be helpful to management and employees alike."

**COLOR DYNAMICS Engineering Study for Your Plant—FREE!**

● **Why not try COLOR DYNAMICS** in your plant—on a machine or two, or in one department—and see the difference it makes! For an explanation of what COLOR DYNAMICS is and how it works, send for our free booklet. Better still, let us make a color engineering study of your plant, or any part of it, free and without obligation. Call your nearest Pittsburgh Plate Glass Company branch and arrange to have a trained color expert see you at your convenience. Or send coupon below.

**Mail This Coupon For FREE Booklet!**

Pittsburgh Plate Glass Co., Paint Div.  
Department NS-52, Pittsburgh 22, Pa.

- ☐ Please send me a FREE copy of your Booklet "Color Dynamics."  
☐ Please have your representative call for a Color Dynamics Survey without obligation on our part.



Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_

Copy, 1952 Pittsburgh Plate Glass Co., Pittsburgh, Pa.



**PITTSBURGH PAINTS**

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY



safety



# POSTERS

## For Your Information

**A**BOVE is a reproduction of the 1952 Directory of Occupational Safety Posters — copies of which have been mailed to all National Safety Council industrial members. **This new Directory contains miniatures of 744 posters—top-notch selections on a great variety of subjects.** Additional copies are available at 50 cents each, by writing the Membership Dept., N.S.C.

Posters miniaturized on this page and the two following are NEW—produced for the first time this month. Excepting the Jumbo poster (below, left) all will be in stock throughout 1952. The posters shown in black-and-white on the two following pages are actually printed in two or more colors.

**MAKE THE MOST OF YOUR POSTER SERVICE** by selecting from the brand new posters shown on these pages each month and from the hundreds of illustrations in the 1952 Directory.



NATIONAL SAFETY COUNCIL  
9592-C 25x38

Above new "C" poster, issued monthly, is indicative of the other two color posters—shown in black and white on the following pages and in the 1952 Poster Directory.



JUMBO POSTER for JUNE 1952

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9' 11" by 11' 8".



9475-A 8 1/2 x 11 1/2

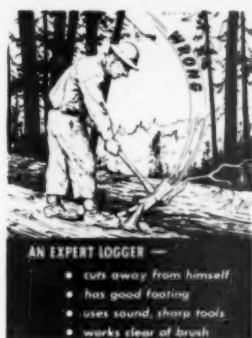
This new four color poster is illustrative of the 72 four color posters shown in the 1952 Poster Directory.

Electrotypes of poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors  
(Available only in sizes indicated)



NATIONAL SAFETY COUNCIL  
9570-B 17x23



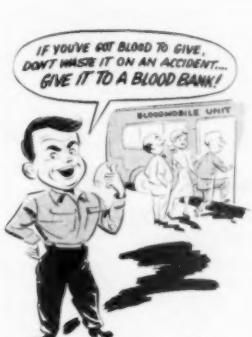
NATIONAL SAFETY COUNCIL  
9557-A 8½x11½



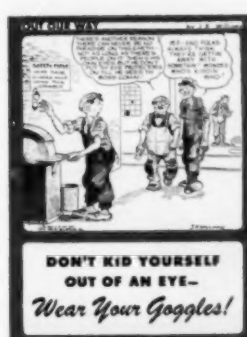
NATIONAL SAFETY COUNCIL  
9529-A 8½x11½



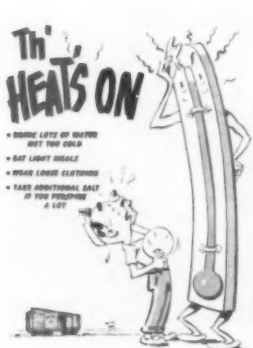
NATIONAL SAFETY COUNCIL  
9563-A 8½x11½



NATIONAL SAFETY COUNCIL  
9571-A 8½x11½



NATIONAL SAFETY COUNCIL  
9447-A 8½x11½



NATIONAL SAFETY COUNCIL  
9564-B 17x23



NATIONAL SAFETY COUNCIL  
9546-A 8½x11½



NATIONAL SAFETY COUNCIL  
9526-B 17x23

Electrotypes of payroll inserts can be furnished on all poster illustrations shown above.

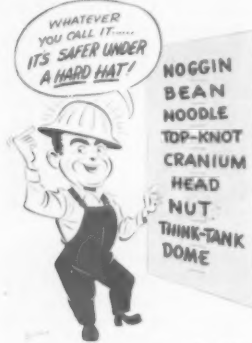
Posters below are printed in two or more colors  
(Available only in sizes indicated)



NATIONAL SAFETY COUNCIL

9561-A

8½x11½



NATIONAL SAFETY COUNCIL

9572-B

17x23



NATIONAL SAFETY COUNCIL

9521-A

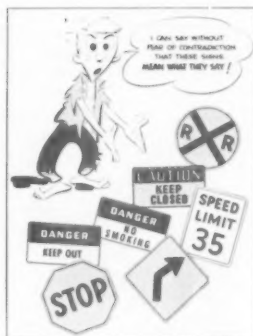
8½x11½



NATIONAL SAFETY COUNCIL

9540-A

8½x11½



NATIONAL SAFETY COUNCIL

9528-B

17x23



NATIONAL SAFETY COUNCIL

9558-A

8½x11½



NATIONAL SAFETY COUNCIL

V-9553-A

8½x11½



NATIONAL SAFETY COUNCIL

V-9552-B

17x23



NATIONAL SAFETY COUNCIL

V-9551-B

17x23

Electrotypes of payroll inserts can be furnished on all poster illustrations shown above.



### Five-Minute Safety Talks

The third book in the popular series, *Five-Minute Safety Talks for Foremen*, is now ready. Designed to supplement the two previous books, Book III contains many talks on new subjects.

The first-aid section in particular has been expanded to include talks on the emergency measures necessary in certain kinds of serious injuries and on the new methods of artificial respiration advocated by the Council, the Red Cross, the Navy and others. There is also a large number of talks on general subjects aimed at stimulating the worker to think about his responsibilities in accident prevention.

As in Book I and Book II, each talk is on a perforated page so that it may be torn out for easy reference; and each volume includes a page of explanation on how to use the talks. Planned as guides in giving brief safety talks at tool-box meetings, this series of books has proved invaluable to the busy foreman.

Member prices: 1 to 9, \$1.70 each; 10 to 99, \$1.50 each.

### Vacations Leaflet

In response to industry's increased interest in the off-the-job safety of workers, the Council has just produced a leaflet, entitled *The Rush Is On*, dealing with vacation safety.

Printed in four brilliant colors, the leaflet unfolds to show a large map of the Vacation Land USA—and all the troubles and miseries that can befall the pleasure-bent vacationer.

The leaflet reminds the reader: "Make this vacation a rest, not a workout . . . You can't have fun in a hurry . . . If you really want to enjoy your vacation, plan for a

safe vacation . . . Have your fun, but be sure you don't get hurt."

One full page is devoted to a "Vacations Checklist." Dealing with driving safety, water safety, fire hazards, vacation clothing, summer weather hazards, it points out the steps that each worker can take not only to have more fun on his vacation but to return to work rested, sound, and safe.

*The Rush Is On* is specially folded to fit the average payroll envelope. Plan to issue one to every employee before he leaves for his vacation—as a step toward better employee relations and to ensure that vital workers will return to your production lines after their two or three weeks of fun!

### Housekeeping Booklet

The Council's most recent employee-directed publication is a 16-page, two-color booklet entitled *Shipshape*, dealing with plant housekeeping.

Pointing out that "Good housekeeping means smooth sailing"—fewer interruptions, no wasted effort, and fewer accidents—the booklet instructs the worker to look out for commonly encountered housekeeping hazards. Some of the housekeeping problems covered are:

- Oil and flammable liquids
- Smoking
- Cleaning machines and work areas
- Combustible materials
- Material handling and storage
- Handtools
- Tripping hazards
- Nails and glass

*Shipshape*—using a nautical motif—is certain to amuse, impress, and instruct the industrial worker. It's a fresh, attractive approach to the perennial problem of the safety engineer: getting em-

ployees to cooperate in keeping the plant orderly and clean.

Member price: 1 to 9 copies, 12 cents; 10 to 99 copies, 7 cents; 100 to 999 copies, 6 cents; 1000 to 4999 copies, 4½ cents. Special quantity discounts.

### Artificial Respiration Safetygraph

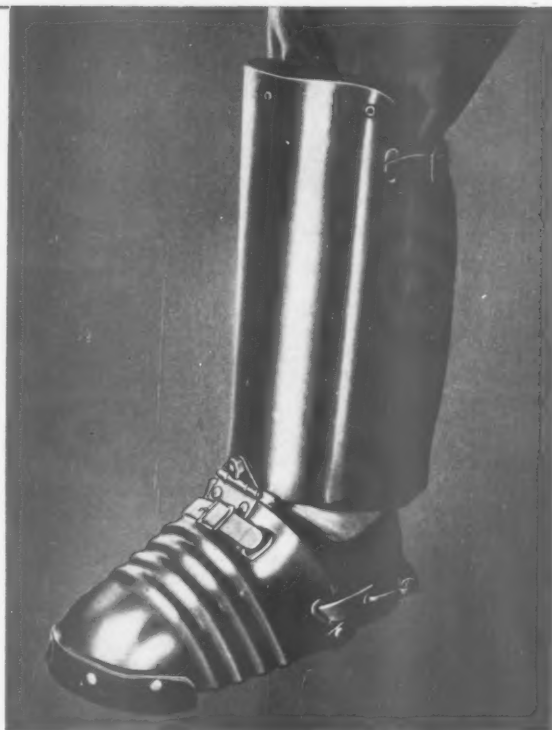
The Industrial Department has prepared the new Safetygraph No. 23 on two methods of artificial respiration. Both the arm-lift, back-pressure method and the hip-lift, back-pressure method of artificial respiration are discussed at length. The Safetygraph is illustrated with line drawings prepared especially for it by the Council. The text is simple and straightforward. This Safetygraph has the advantage over other recent publications on artificial respiration because the problems of changing operators are discussed completely.

### Three New Safety Reprints

Safety Reprint General 29, *Progressive Hazard Hunt*, first appeared in the NATIONAL SAFETY NEWS. It describes one of the bi-monthly hazard hunts which member companies of the Tri-State Fire and Accident Prevention Group of the National Petroleum Association have found so effective in propagating accident prevention knowledge. The reprint will make good reading for all safety directors, engineers and foremen who are looking for good ways to stimulate the interest in safety in their own plants.

Safety Reprint Construction No. 12, *Safety Built into High Tower Hoists*, is a reprint from "Construction Methods and Equipment." The article describes and illustrates the various mechanisms and details of design which have made the material hoists used on several high building projects in the Chicago area "safe for passengers." Knowing that the "no passengers" rule for material hoists is often violated, the contractor decided to make the hoists on one apartment he was building safe for men and materials alike, and the reprint describes how he did this.

—Next Page



#### "SANKEY" COMBINATION SHIN-FOOT GUARD

This guard provides protection for TOE, FOOT, INSTEP, and SHIN. It is constructed of aluminum alloy, weighs 34 oz. each, has an overall height of 15 in. from the floor. These guards are being used by adz operators, cattle herders and shacklers, pneumatic tool operators and handlers of piled scrap, steel, pigs, billets, etc.

Right — IMPROVED  
FOOT GUARD

For additional information about "SANKEY" Foot, Toe and Leg Protective Guards please write the ELLWOOD SAFETY APPLIANCE CO., 219 Sixth St., Ellwood City, Pa.

**ELLWOOD SAFETY  
APPLIANCE CO.**



Safety Reprint Pulp and Paper No. 4, *Safe Practices in the Folding Paper Box Industry*, reprinted from "Box Board Containers" magazine, is the picture story of safe practices followed by many companies engaged in making folding cartons. The photographs were taken by a National Safety Council staff photographer at the Chicago plants of the Ace Carton Corporation and the Chicago Carton Company.

Prices of safety reprints vary with number of pages. Write for quantity prices.

#### Three New Data Sheets

A new data sheet, *Printer-Slotters*, has just been published. Written by Mr. A. O. Vranek of the Container Corporation of America, and reviewed by numerous users and manufacturers of the equipment, it discusses hazards in the operation of printer-slotters; guards, safety and warning devices; scrap disposal; and operating safety rules for employees. Photos showing new types of guarding devices are included.

A new Data Sheet, D-EE 4, *Storage Batteries*, is also available. The discussion covers thoroughly the hazards and problems of battery charging and handling.

Data Sheet D-T 10, *Garnetting Machines*, is now ready. It has been prepared by the Textile Section of the Council and discusses the hazards involved in garnetting operations. Particular emphasis is placed on the problems of guarding in operating and cleaning this machine.

Member prices: Data Sheets, 1 to 9 copies, 17¢. Write for quantity prices.

#### New Detail Sheet

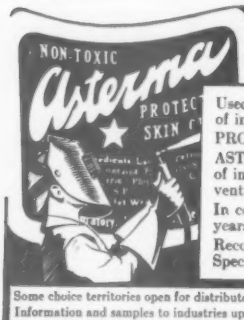
Detail Sheet No. 132, *Gantry (Straddle) Truck Drive Chain Guard*, gives the plans for the building and installation of a drive chain guard for gantry trucks.

Member prices: Detail Sheets, 1 to 9 copies, 12¢. Write for quantity prices.

#### Operation Safety

Promptness on the job is vitally important to management. It means happier workers, because of fuller pay envelopes, as well as maintenance of full production schedules.

But promptness at the expense of safety—especially where work-



#### INDUSTRY'S NON-TOXIC PROTECTIVE SKIN CREAM

Used successfully for a number of years in all types of industries for skin protection of workers.

PROTECTION against irritating and drying materials.

ASTERMA'S lubricating action is effective in the removal of inks, paints, dyes, dirt, grime, grease, oils, aids in preventing skin-disorders by keeping skin clean and soft.

In constant use in Industrial Hospitals for a number of years for First Aid, all types of burns, cuts, bruises, etc.

Recommended and prescribed by Physicians and Skin Specialists.

Some choice territories open for distributors.  
Information and samples to industries upon request.

ASTRA Laboratory, Inc., Scotia, New York



**"At National  
Cash Register  
we believe . . ."**



**STANLEY C. ALLYN**  
President, National Cash Register Company

***"At National Cash Register we believe a thrifty employee is a better employee and a better citizen. By providing the Payroll Savings Plan for U. S. Defense Bonds we help our employees practice the thrift habit and build up a backlog of savings for their future security. By buying Bonds they become shareholders in their country."***

The employee who joins the Payroll Savings Plan becomes a man with an objective—a young fellow who realizes that the systematic purchase of Defense Bonds is a sure way to the down payment on a home . . . a father who wants to provide for Junior's college education . . . an older man, with an eye to retirement and personal security.

**The man with an objective is a better employee.** He knows that a day lost from work is just that much out of his take-home savings. He doesn't take chances—wants to stay off the accident list. He has a new realization that better work on his part will lead to advancement—and a larger monthly allotment for Defense Bonds.

**The man with an objective is a better citizen,** holds his head a little higher. He is buying a growing share in

America . . . helping to combat inflation . . . making a real contribution to the defense effort.

These employee and employer benefits of the Payroll Savings Plan are reflected in the records of thousands of companies. Figures show that as employee participation in a Payroll Savings Plan grows to 60%, 70% or higher, absenteeism decreases, the "Lost Time Accidents" curve goes down and production goes up.

If 60% or more of your employees are not Men With Objectives, do something about it. Phone, wire or write to Savings Bond Division, U. S. Treasury Department, Suite 700, Washington Building, Washington, D. C., and your State Director, Treasury Department, will show you how to install a Payroll Savings Plan, or how to build an existing Plan.

During 1951, over 1,500,000 employed men and women joined the Payroll Savings Plan.

*The U. S. Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and*

**NATIONAL SAFETY COUNCIL**



**CAN THIS HAPPEN TO YOU?**



**NOW!**

**You Can Guard Against  
FRAUDULENT INDUSTRIAL DEAFNESS**



**MODEL F-1  
(STANDARD)**

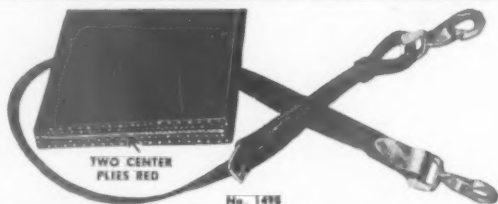
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**Maico**  
**AUDIOMETER**

Maico's Model F-1 Audiometer evaluates hearing ability electronically . . . gives you a permanent record of pre-employment hearing losses, and—through periodic re-testing—detects and measures any subsequent losses that may develop during employment! Write today for free booklet that tells how Maico Audiometric testing may save your firm thousands of dollars in fraudulent or unwarranted claims.

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THE **MAICO CO.**  
315 MAICO BUILDING  
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TWO CENTER  
PLIES RED

No. 1498

**NEW! BUHRKE NYLON SAFETY STRAP—ULTRA FLEXIBLE**

Light weight, SAFE, uniform flexibility—even at -55° F., strap remains soft and pliable; in 2 styles, No. 1498 with slide buckle, and No. 1498 (above) with tongue buckle. Made of NYLON FABRIC, 1 1/2" wide, 6 ply. Full cross section breaking strength over 3,000 lbs., buckle hole strength over 600 lbs. SAFE to use until RED PLY appears. Complete controlled fabrication of strap in our plant. Write . . .

**R. H. BUHRKE CO., 4701 W. Grand Avenue, Chicago 39, Illinois**

ers drive to and from work—is poor economy. Speeding to work in order to get there on time doesn't pay off. Unsafe speed is a factor in two out of every five fatal traffic accidents.

*Operation Safety*, the National Safety Council's community public safety education guide covering the traffic field, takes Speed Control as its June theme and hammers home its point with effective, attention-getting materials—ideal starters for off-the-job traffic safety efforts.

Among materials in the June kit are radio spot announcements, easily adapted to the off-the-job safety education program via the plant public address system, and five-minute interview type scripts that can readily serve as feature articles in plant publications.

The June kit also contains a special editorial aimed at Fourth-of-July and vacation driving. The editorial may be used in whole or in part—or merely as a springboard for other ideas—in any plant publication.

Also effective for off-the-job safety education are four short, pointed news releases requiring only minor revisions for use in a plant magazine or newspaper.

Samples of these and other materials, prices and information on the complete *Operation Safety* program may be obtained from the National Safety Council.

**Service Guide 5.2**

The new revised edition of *Service Guide 5.2* is now off the press. This Service Guide contains the complete listing of Safety Instruction cards. They are listed under subject, by industry and also alphabetically, for quick, easy reference. A feature of this new edition of Service Guide 5.2 is its size. Measuring 5 1/2 x 8 1/2 inches, it fits into the cover of the Safety Instruction Card file case, keeping it with the set of cards for ready use.

Sign on a tavern: We don't have TV but we do have a fight every night.

## Industrial Health

—From page 113

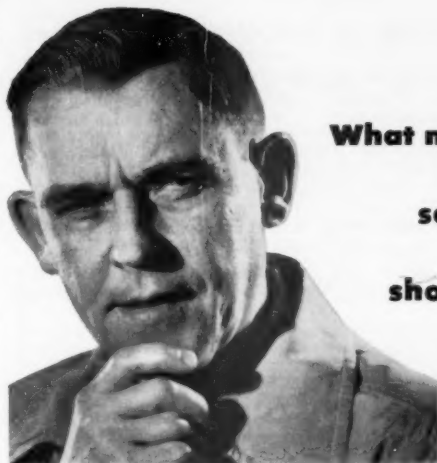
airplanes exposure to the ultrasonic field of jet motors was said to produce nausea, vomiting, excessive fatigue, headache, and increased irritability. This may be because the physicists who made the earliest measurements on the energy in the ultrasonic field stated that the levels were high enough to damage the ear if the sound was audible.

The early generators of ultrasound were largely operated in water and it was natural that observation was made of the effects of the sound waves on various organisms inhabiting the water. It was early observed that injury and death to small fish and frogs resulted from the exposure to this kind of sound. Very few studies were made of the effect of ultrasound in air on organisms because of the difficulty of setting up sound waves of high energy content in air.

This question became of interest when turbojet engines were developed because they are inherently good generators of airborne sound as a high velocity stream of gas is modulated in their normal operation. Sirens are inherently effective devices also for setting up high sound intensities in air. The sirens were developed as sources of ultrasound primarily to study the effects of airborne ultrasound under controlled conditions as a result of interest stemming from the development of jet power plants.

Some of the earliest work with airborne ultrasound was that of Rudnik, Allen and Frings which showed that mice exposed to an airborne ultrasound field were rapidly killed.

The authors repeated this work and showed that the animals were easily killed in airborne ultrasonic fields and equally easily killed in sound fields of the audio frequency range down to about 2,000 cycles per second. They also showed that the fur temperature and rectal temperature increased continuously during the experiment in the instances where the animals died. When the animals were exposed to a source of radiant heat



**What nonsparking  
safety tools  
should I buy?**

Every day buyers are faced with the problem of replacing a steel tool with a nonsparking one for use on a hazardous job.

The obvious solution is copper, because of its well-known nonsparking quality. Unfortunately, pure copper is too soft to be serviceable. But with the addition of beryllium to copper, an alloy is obtained with the highest combination of hardness and toughness for safety tool applications. Further, the nonsparking feature

of copper is retained, and the beryllium hardening content does not affect its nonmagnetic and noncorrosive advantages.

Where you need nonsparking safety tools, specify BERYLCO beryllium copper to be sure you are getting the top in strength and service life for your money.

**Your best buy for  
safety PLUS strength—**

**BERYLCO SAFETY TOOLS**

**SEE YOUR JOBBER TODAY**

**THE BERYLLIUM CORPORATION**

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### DAV-SON BULLETIN BOARDS

Use DAV-SON Cork Back Bulletin Boards for pinning up notices, letters, photos, etc. Many sizes and styles available for your particular requirements.

#### **Write for Special Circular**

We manufacture the famous DAV-SON Changeable Letter Bulletin Boards, Safety Displays, Lobby Directories and Name Plates for every purpose.

**A.C. DAVENPORT & SON., INC.**  
ESTABLISHED 1922  
311 N. DESPLAINES ST., CHICAGO 6, ILL.

which was properly adjusted the same fur and rectal temperature relations could be produced as were produced by the ultrasound and sound and the animals died when the rectal and fur temperature came to the same point as in the sound experiments. In all of these experiments where experimental animals were killed, the sound pressure levels required to produce death were always 152 decibels or greater and it seemed

probable that the death was primarily the result of overheating due to the absorption of the ultrasound energy by the animal's fur.

Experiments in which the animals were shaved showed that the deaths did not occur and sound absorption measurements showed that the rat had a moderate high absorption coefficient for sound in the low frequencies which decreased to a minimum at about 1500 cycles per second and then

increased continuously as the frequency increased. The shaved rat on the other hand had the highest absorption at the low frequencies and absorption decreased continuously with increasing frequency.

Similar experiments on the surface of the human body showed similar results, that is, the absorption is small as compared to that of furred animals and decreases rapidly with increasing frequency.

From these data it was possible to calculate sound levels which should be lethal and also the time required for a sound wave above a certain minimal level to produce death. The calculation shows that there is a definite sound level below which animals will never be killed and that death occurs above this sound level very much more rapidly as the sound level is increased. Calculations showed that the minimum lethal sound level should be about 150 decibels. Experimentally the minimum fatal level was 152 decibels. By the same calculation the sound level required to kill a man should be

**FRANKLIN'S...**  
THE WAX THAT HAS EVERYTHING!

HIGH GLOSS...WATER RESISTANT...LONG WEARING...*Safe!*

**Better** WITH **HATTIE SNOW** UNIFORMS

- ★ SLACK SUITS
- ★ COVERALLS
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- Durable
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WRITE for complete information on styles and prices

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2 CAROLINE ST.  
OGDENSBURG, N. Y.

of the order of 180 decibels or more. This means that the sound pressure required to be lethal to a man would be approximately ten thousand times greater than that produced by jet engine exhausts and that men working in the area of these plants are in no danger of losing their lives.

This does not indicate that the noise fields of jet power plants are harmless, however, because they contain components at audible frequencies which are quite capable of doing severe damage to the ears. It is necessary to protect against the sound field of these power plants but it is the audible rather than the ultrasonic components which are dangerous.

It cannot be assumed from this that ultrasonic generators in which the ultrasonic wave is set up in liquids or solids are necessarily harmless. Manipulations which bring the human body into direct contact with such liquid or solid medium make a much better condition for transmission of the sound into the body and may readily produce a hazard. This is especially true in the case of experimental equipment which is not guarded so that the operator cannot come in contact with the generator or the medium being radiated and also in the instance of certain industrial applications such as degreasing and other processes employing ultrasonic radiation and bringing the operator into direct contact with the material.

Ultrasonic energy has also been used, particularly in Germany, as both a therapeutic and diagnostic aid in medicine. Ultrasound should be capable of demonstrating foreign bodies such as tumors and gallstones or kidney stones in the human body exactly as it can demonstrate discontinuities in other media. The ultrasound is also capable of producing changes in the physiological function of various tissues by heating them and perhaps by other methods. There have been reports of injury to operators of equipment used for this purpose.

Experience in this country has indicated that the quantities of ultrasound used in diagnostic procedures are generally without hazard to the patient but that the

## How CLEANLINESS IS AUTOMATIC WITH *Bennett Bilt* WASTE RECEPTACLES

Everybody is a member of your cleaning department by conveniently locating Bennett Bilt Self-Closing Receptacles to invite their use for economical neatness and sanitation. Put them to work for you today.

### ONLY BENNETT BUILT WASTE RECEPTACLES HAVE ALL THESE FEATURES:

- Stainless steel feet
- Extra heavy-gage, corrosion-resistant steel
- All-welded construction
- Smooth surface—no catching or tearing of clothes
- Reinforced rounded corners for strength and appearance
- Counter-balanced self-closing, independent doors stay closed to provide greater sanitation and reduce fire hazards
- Baked white or green enamel finish

Built for hard usage make these receptacles a natural "buy". Write for fully illustrated catalog.

Below shows how easy it is to remove Onseberg bags or galvanized liners.



### ALSO PRODUCERS OF PAPER TOWEL AND TISSUE PAPER DISPENSERS



Single fold junior paper towel dispensers.



No. 500 and No. 600 tissue paper dispensers for single fold and double fold respectively.



Double fold paper towel dispensers.

**BENNETT MANUFACTURING CO., ALDEN, N. Y.**

## Weatherite SIGNS

BAKED ENAMEL

STANDARD REGULATION  
SIGNS OF ALL KINDS FOR  
SAFETY AND EFFICIENCY

Write for Catalog

**PRAIRIE STATE PRODUCTS CO.**

3822 LAWRENCE AVE.,  
CHICAGO 25, ILL.



use of therapeutic equipment such as has been used in Germany is not without hazard to the individual being radiated as well as to the operator.

## Fibrous Materials

—From page 48

loads of insulation fiberboard were shipped from a factory in the South, bound for New York State, before the heat of fabrication was completely dissipated. Seven days

later one carload was discovered to be afire. The other eight cars, when unloaded into an Army warehouse after 10 to 12 days on the road, were stacked in a single pile of more than 24,000 cu. ft. Four days later the warehouse and its contents were destroyed by fire, the loss amounting to 2½ million dollars.

During investigation of the fires, the possibility of ignition due to self-heating was considered. As a result, The Corps of Engineers

asked the National Bureau of Standards to investigate whether self-heating in the interior of wood fiberboard could cause the material to ignite.

A. C. Hutton and D. Gross of the NBS Fire Protection Section developed equipment and methods for studying self-heating characteristics over a wide range of size and temperature conditions. Boards cut octagonally were stacked in depths equal to the width of the octagon. These were introduced into a suitable oven or furnace and held at constant ambient temperature until the peak of self-heating was passed or until the self-heating had resulted in ignition. Series of increasing ambient temperatures were used until the lowest ambient temperature at which ignition would occur was found.

The initial tests were made on wood fiberboard specimens .01 to 12 inches in diameter. The larger the volume of the specimen, the greater is the self-heating temperature rise within the specimen for a

# GRIP IT... Safely

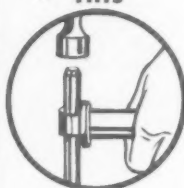
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given ambient temperature and the lower is the external temperature required to initiate combustion. Ignition was found to start at the geometrical center of the specimen and spread outward.

Data were also obtained on cane fiberboards, felted cotton liners (alpha cellulose), Douglas fir, crushed coal, and alfalfa hay. For the cellulose-type materials so far tested, the lowest ambient temperatures that cause ignition fall within a range of 50 degrees F for a given sample size, but the times required to reach ignition vary widely. Thus, a 2-inch sample of wood fiberboard at 356° F ignites in 13 minutes, while a 2-inch sample of felted cotton fiber ignites at 394° F after 63 hours. When the ambient temperature is allowed to rise with the self-heating of the specimen rather than being kept constant, ignition is accelerated.

For a given material, the logarithm of the ignition temperature was found to vary inversely as the logarithm of the specimen size. It

appears probable that extremely large volumes of fibrous materials will ignite at relatively low ambient temperatures and that a potential fire hazard exists in the transportation and storage of these materials—in particular, immediately after hot processing and drying. More effective control of shipping and storing temperature and of stack size is therefore recommended to reduce the probability of ignition due to self-heating.

## Heads Industrial Hygiene Association

WILLIAM R. BRADLEY, chief industrial hygienist of American Cyanamid Company, took office as president of the American Industrial Hygiene Association April 22.

Mr. Bradley, who succeeds Dr. Anna M. Baetjer of the Johns Hopkins School of Hygiene and Public Health, received his B.A.

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degree from Cornell College, Mount Vernon, Iowa, in 1929. He took graduate work at the State University of Iowa Medical School from 1929 to 1931, in the Graduate School 1931-1932, at Buena Vista College in 1933, and received his M.S. degree from State University of Iowa Graduate College.

He is past president and past secretary of both the Michigan Industrial Hygiene Society and the Metropolitan New York Section of the American Industrial Hygiene Association.

### Heat and Humidity

—From page 33

the body must not drop below a certain level.

Individual requirements for water depend on physical characteristics, temperature, and physical exertion. In general, thirst is a reliable guide if the water is cool, palatable and convenient. People will seldom drink enough if they have to go out of their way for it.

The facilities are important, too. Fountains of approved design and the use of paper cups are both satisfactory. Shining metal and white enamel, kept fresh and clean, are inviting. Where paper cups are used, a dust-proof dispenser should be provided, also a receptacle for used cups.

### How About Salt?

Salt plays an important part in hot weather hygiene. It has proved its effectiveness in preventing the distressing symptoms of heat cramps and heat exhaustion, but it is not a preventive of all summer ailments. Nor will it eliminate the discomfort of heat and humidity.

Excessive perspiration robs the body not only of water but also of its salt content. Loss of these vital ingredients results in fatigue, exhaustion and in extreme cases, severe cramps.

Office workers and others in occupations requiring comparatively little muscular effort may need only a little extra salt on food. But for those whose work involves considerable physical exertion and profuse sweating, extra salt may be needed.

This can be provided by adding

the salt to the drinking water, but it should be done under medical supervision.

A strong, lukewarm solution of salt is a powerful emetic, so both the concentration of salt and the temperature of the water must be controlled.

A salt content of .1 per cent has been recommended but some individuals begin tasting it at 0.75 per cent. Keeping the content at 0.74 per cent and the temperature at 45 to 50 degrees has been generally satisfactory.

For most companies the salt tablet dispenser at the drinking fountain is the most economical and convenient method. Even in plants where the drinking water supply has been treated, extra rations in tablet form may be needed for more severe exposures. Tablets in small pocket packages can be provided for men who work away from the plant.

Some individuals cannot take ordinary salt tablets, and complaints should not be dismissed as imaginary. Enteric coated tablets which pass through the stomach intact and dissolve in the intestines prevent stomach distress.

Another type of salt tablet was developed a few years ago in the Naval Medical Research Institute, Bethesda, Md. These tablets are impregnated with cellulose acetate or cellulose nitrate. Because of this structure the tablet dissolves very slowly in the stomach. Some salt is released instantly and dissolution takes about 80 minutes.

Salt tablets containing 30 per cent dextrose are easier to take than the plain variety. The dextrose is also supposed to restore lagging energy.

Salt tablets of any type should always be accompanied by an ample drink of water.

In addition to replacement of fluid and salt, personal hygiene is important. Heat exhaustion on the job may be due, partly at least, to conditions and habits off the job.

One of the worst things about a heat wave is loss of sleep. On a sultry night the back porch or the car is more inviting than a stuffy bedroom. That doesn't contribute to alertness next day.

Water used externally as well as internally helps to overcome

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fatigue. Regular bathing and frequent wash-ups are refreshing. Too many calories in the diet should be avoided but it isn't advisable to go to the other extreme.

It would help, too, if we could eliminate the pest who asks: "Is it hot enough for you?"

### Four Perfect Records in Steel Castings Contest

Perfect safety records by four steel castings companies during 1951 and exceptionally low accident frequency ratings for 12 others have been announced by F. Kermit Donaldson, executive vice president, Steel Founders' Society of America, in a cumulative report of continuing gains in steel foundry safety.

Setting the pace was Hughes Tool Company, Houston, Tex., which completed its fourth successive year of accident-free operation.

The other three steel foundries with unblemished records in 1951 were The Eastern Malleable Iron Company, Wilmington, Del.; Quincy Steel Casting Co., Inc., North Quincy, Mass.; and Weatherly Steel Castings Company, Weatherly, Pa. For the latter two companies, it was the second successive year of operation without a disabling injury.

Closely trailing the four leaders, 12 other steel foundries established accident frequency ratings of less than 10.0 per 1,000,000 man-hours of exposure.

Steel Founders' Society of America represents a majority of the steel foundries in North America and more than 90 per cent of actual productive capacity.

### Carbon Monoxide

—From page 41

material into the respiratory tract while the victim is unconscious. The slowing of circulation and respiration which follows the gassing, and the exposure to low temperature during treatment, contribute to the development of pneumonia.

15. Usually carbon monoxide poisoning is followed by an increase in the red cell count, but



occasionally anemia has been encountered as an aftereffect. However, many authorities believe that if anemia follows carbon monoxide gassing, it results not from carbon monoxide, but from other vapors such as benzol or unburned gasoline vapors, or from some already existing bodily condition which the anoxia aggravates.

16. The quite infrequent heart ailments encountered following carbon monoxide gassing may be due to the weakness in the heart muscle created by the period of anoxia. However, many authorities feel that if there is a pre-existing weakness in the heart muscle, particularly in the function of the coronary artery, this condition will be aggravated by the period of oxygen starvation.

#### Exposure

17. Carbon monoxide presents a serious hazard in many operations of the chemical industry. This is especially true for the manufacture of ammonia gas by the Haber Bosch process, the synthesis of methane and methanol, and the Le Blanc process for the manufacture of soda. Charcoal burners and carbide workers may also be exposed to carbon monoxide. It is a serious threat to coke oven workers and tar distillers in illuminating gas manufacturing.

18. Fire damp explosions are the most serious source of carbon monoxide in mines. But the exhaust gases from explosives, too, represent a formidable source of the gas.

19. In metal industries, blast furnace workers, Bessemer converter men, and acetylene welders are exposed to carbon monoxide. Copper, lead, silver, and zinc smelting operations may present severe exposure. The gas chargers, cleaners, core makers, and cupola men in foundries have a good chance for serious exposures. Blacksmiths, plumbers and solderers may also be exposed to the gas.

20. The flangers, cloth singers, calico printers and ironers of the garment industry may be exposed to the gas.

—Next page

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21. Kiln workers and brick burners run the risk of serious exposure. Other workers in the ceramic industry: temperers, mold makers, teasers, enamellers and enamel makers, run some risk of exposure.

22. In a number of other industries carbon monoxide is a serious hazard. Firemen, cooks and bakers, chauffeurs, garage mechanics, linotypists and furnace repairmen run a fair risk of exposure.

23. All of these operations (paragraphs 17 to 22) present serious enough carbon monoxide threats to warrant monitoring.

#### Protection

24. In general the prevention of carbon monoxide poisoning depends upon three things. First, the control of industrial processes to prevent the formation of carbon monoxide; or, where this is impossible, as with internal combustion engines, the destruction of the gas as it is generated. When these preventive measures cannot be applied, ventilation provides the next best solution. As a last resort, when the gas neither can be prevented from being generated nor destroyed or carried away, protective equipment should be provided for the workers who are likely to be exposed.

25. The majority of industrial processes can be regulated so that the generation of carbon monoxide is eliminated altogether or kept at such a low level that it presents no threat. For instance, the flame under a lead pot or in an oven can be regulated so that combustion is complete; but, this is not possible with a blast furnace or an internal combustion engine. In cases like this the gas must either be destroyed or removed.

26. Promising work is being done on silver permanganate as a catalyst to destroy atmospheric carbon monoxide. Catalytic mufflers for internal combustion engines, which destroy the monoxide at the point of generation, are now on the market. These mufflers, however, require the use of unleaded gasoline. It is unfortunate, but at this point these devices have only limited application and

ventilation remains the best way of handling carbon monoxide.

27. The concentration of carbon monoxide in the air should never exceed 100 parts per million of air, for an eight hour exposure, or 400 parts per million for a one hour exposure, in an atmosphere containing at least nineteen per cent oxygen. (*American Standard Allowable Concentration of Carbon Monoxide Z37.1-1941*). Any ventilating system should be designed to maintain the monoxide concentration below these maximum levels. Local exhausts, which remove the gas at the point of generation, are to be preferred, but general ventilation should not be overlooked as a control measure.

28. Monitoring devices are available and should be installed near those processes (blast furnace and mine blasting operations are among these) whose monoxide production is variable and liable to exceed the capacity of the installed ventilating devices. The atmosphere near other operations whose monoxide production is less severe should be tested periodically.

29. Among the commercially available portable testing devices, those utilizing the National Bureau of Standard Colorimeter Gel are the most convenient and easiest to use. Most other methods, the pyrotannic acid method, for instance, are too cumbersome for field work and besides, require for their use better than average technical knowledge and ability.

30. For those situations which arise when the ventilation system is not strong enough to reduce the concentration of carbon monoxide to below the safe level, personal protective equipment must be provided.

31. The Bureau of Mines has approved only three types of respiratory protective devices for carbon monoxide contaminated atmospheres. Self contained breathing apparatus, and hose masks with blowers are approved for use where there is an oxygen deficiency. These devices, two plus the type D and type N gas masks are approved for atmospheres im-



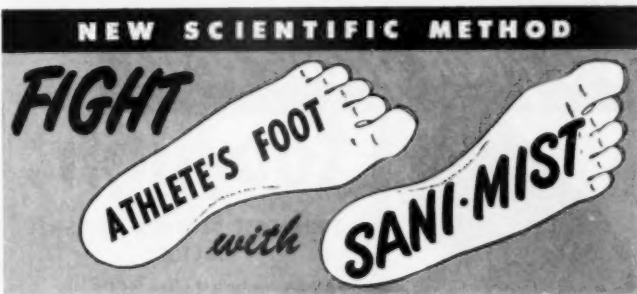
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The above is a true account of an actual experience viewed by witnesses. Remember Ansul is **FIRST** in Fire-Stopping effectiveness with inexperienced operators... and... **YOUR BEST PROTECTION** for flammable liquid, gas and electrical fires.

SEE PAGE 7



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mediately dangerous to life. But the canisters for both the type D mask, which is specific for carbon monoxide, and the type N mask, which is the universal mask, are not approved for concentrations exceeding two per cent carbon monoxide.

32. In choosing a particular type of respiratory device, the probable concentration and length of time it may have to be used should be considered. The hose mask and blower is particularly useful for work in a contaminated atmosphere; the self-contained breathing apparatus, which depending upon the type, has a maximum working life of up to two hours is suited for rescue purposes; while the gas mask is used best as an escape device.

33. In using the canister type respirators, it should be remembered that the canisters have a limited operating life. For this reason a record of the length of time each canister is used should be kept with the canister. In some cases, it may even be desirable to discard a canister after only a portion of its expected operating life has been consumed.

34. The education of employees is another important factor in the protection against carbon monoxide poisoning. Before anyone is given work in an area of probable contamination, he should be made to understand the risks he runs. The symptoms of the poisoning should be explained to him and he should know what to do should he or a member of the crew in which he works be overcome. He should have no doubts as to how to give first aid or how to use the respiratory devices available to him.

35. Only experienced foremen should be placed in charge of men working in gassed areas. These men should always be checked on and off their jobs.

### First Aid

36. Treatment of acute carbon monoxide poisoning is based upon these two principles:

- a. Restoration of breathing by artificial respiration.
- b. Acceleration of the elimination of carbon monoxide from the

hemoglobin by the inhalation of oxygen.

37. It is imperative that the victim be removed to fresh air immediately and that normal breathing be restored as soon as possible. After breathing ceases there is only a short period in which artificial respiration can be started to prevent a complete circulation failure. However, even though the victim appears to be dead, artificial respiration should be started at once and continued until the victim recovers or is pronounced dead by a physician. Even if it is known that a mechanical resuscitator will be available, manual artificial respiration should be started at once.

38. Oxygen should be given in cases not requiring artificial respiration, to eliminate the gas from the blood quickly; and when possible should also be given in conjunction with artificial respiration. Oxygen also helps prevent the severe headaches and muscular pains which usually follow gassing. Drugs are of little value; alcoholic preparations, coal tar derivatives, and heart stimulants are generally harmful.

39. The victim should be kept quiet and at rest until seen by a physician. All cases require watching, and even in mild cases where the victim only has to go into the fresh air to recuperate, he should not be left alone. Even though he may appear normal, he is dazed, and may return to the gassed area if not watched. All exertion should be avoided, because, during exercise, tissue requires more oxygen than the monoxide-contaminated blood can furnish.

40. Plants in which the risk of carbon monoxide poisoning is great should equip their first-aid rooms to test blood samples. Often the serious results of carbon monoxide poisoning can be anticipated and prevented if the concentration of carbon monoxide in the blood is known. Concentrations of carbon monoxide in the blood can best be determined by spectroscopic or colorimetric methods, although the old pyrotannic method has not been completely superseded.

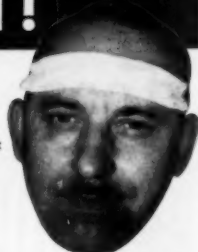
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Sanitary face cloth. Soft rubber face mask. Controlled breathing... check valves guard against re-breathing stale air... exhalation valve exhausts breathed air. Greater visibility... no blind spots! Does not interfere with goggles or glasses.



Sample \$3.00 sent

H. S. Cover Fog-Proof, Gas-Tight Goggles for use with above respirator... \$2.00 pp.

**H. S. COVER, South Bend, Ind.**



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## FLOOR MAT

"THE BEST BY TEST"



**USED ANYWHERE MAN STANDS OR WALKS**

**80¢**

PER SQ. FT. IN STANDARD SIZES

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You never have that "jammed-in" feeling, wearing the Acme Full-Vision Gas Mask. Its patented, larger lenses are like picture windows, giving you full natural vision for that safe, unconfined feeling. When you walk, you can actually see your toes without bobbing your head. This factor alone makes Acme outstanding among gas masks ... well worth looking into.

Write for the complete story on Acme Gas Masks for all occupational hazards.

**ACME PROTECTION EQUIPMENT COMPANY**  
3037 West Lake Street, Chicago 12, Illinois

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### ACKNOWLEDGMENT

This Data Sheet was prepared by the editorial staff of the Industrial Department. It was reviewed by the Safe Practices Conference Committee, and revised according to comments received. It has been approved for publication by the Industrial Conference.

### Original Blitz

—From page 39

in turn should be bonded together and well grounded.

When steel members are surmounted by brick or terra cotta at the top of a building, metal pathways or conductors should be provided, forming a network between the air terminals and the upper parts of the steel frame. This makes it possible to omit other conductors between the air terminals and the ground.

Steel frame buildings may be permanently and effectively grounded by bonding the frame to the point of entrance of the water pipe system with a conductor secured to the pipe by means of a substantial clamp with lugs, and to the frame with bolts and nuts. Artificial grounds should be provided for the steel pedestals, columns, or roof trusses at not less than 50 per cent of the footings, distributed around the building as uniformly as possible.

Grounds consist of both water pipes and buried electrodes, which may be copper or steel rods or cables leading into the ground or buried in trenches.

## WHEN THE HEAT GETS YOU HAV-ALIFT



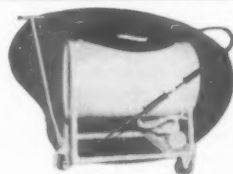
It's common fact that excessive sweating slows down the body's normal processes. To alleviate this condition and restore production to normal, place a HAV-ALIFT Dispenser near the water cooler.

HAV-ALIFT Regulated Salt Tablets will prevent nausea and digestive disorder which might occur by taking plain salt tablets.

HAV-ALIFT comes in 750 and 1,500 Dispensers with either plain Salt or Salt and Dextrose tablets.

For further information, write

**A. E. HALPERIN CO., INC.**  
75 NORTHAMPTON STREET  
BOSTON 18, MASS.



## Spray dirt away

with this Oakite Hot-Spray Cleaning Unit. No brushing—just a twist of the valve and you clean up to 12,000 sq. ft. in half an hour. Wheel it around the plant to clean greasy floors, walls, ceilings, equipment. Strips paint in a jiffy, too.

FREE BOOKLET 8452 gives details. Write Oakite Products, Inc., 14D Rector St., New York 6, N. Y.

SPECIALIZED INDUSTRIAL CLEANING  
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MATERIALS • METHODS • SERVICE

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## Calendar Contest Winners For March

First prize in the National Safety Council's Safety Calendar Contest goes this month to Mrs. Ernest M. Grider of Indianapolis. The theme in this contest was accidents spoil fun. Mrs. Grider's line was adjudged best of all those submitted. It was:

*When I'm hurt it's "We pay!" not just I.*

Second prize went to Mrs. C. A. York of Binghamton, N. Y., for this line:

*In a family, it's "we," not just "I."*

Third prize was awarded to Ivan Loy Herring of Freeland Mich., Mr. Herring is an employee of The Dow Chemical Company, Midland. His winning line was:

*'Cause their cash in one crash was drained dry.*

Thirty \$5 awards were issued to:

R. K. Gimson, Alpha Portland Cement Co., LaSalle, Ill.

Joseph Johnson, Dravo Corp., Pittsburgh, Pa.

Mrs. Helen Adams, San Diego, Calif.  
Burton Hayner, Watervliet, N. Y.  
Behr-Manning Co., Troy, N. Y.

Harold W. Betts, Alpha Portland Cement Co., Pevely, Mo.

A. V. Long, Tulsa, Oklahoma.

Thelma Thompson, Bloom-Ease Inc., Minneapolis, Minn.

Leslye L. Hall, McComb, Miss.

Lenore Brown Ogden, Utah.

Henry K. Voigt, New Castle, Del.  
E. I. duPont de Nemours & Co., Wilmington, Del.

Mrs. M. D. Lawrence, Rochester, N. Y.

Thomas H. Mistler, Covington, Ky.  
Frank Fiori, Portland, Pa., Alpha Portland Cement Co., Easton, Pa.

Mrs. Lillian D. Ellaway, Hamilton, Ont., wife of employee, The Steel Company of Canada, Ltd.

Grace Lane, Minneapolis, Minn.

Harold Crow, Los Angeles, Calif.

Doris L. Pinnell, Oklahoma City, Okla.

Mrs. Anne Whitney, Dade City, Fla.  
Mrs. Uno M. Marttila, Cadillac, Mich.

Mack Garson, New York, N. Y.

A. M. Irvine, Firestone Tire & Rubber Co. of New Zealand, Ltd., Kainga, North Canterbury, N. Z.

Robert Coats, Anchor Hocking Glass Corp., Portland, Ind.

Cpl. Wallace McKenzie, Arlington, Va.

Nathan L. Collins, Northern Pacific Railroad, Deerwood, Minn.

Mrs. J. R. Battle, Villanova, Pa.

Orville Duty, Genoa, Ohio, Kelly Island Lime & Transport Co., White Rock, Ohio.

Mrs. Michael Fey, New York, N. Y.  
Mrs. Ralph B. Hall, Beverly, Kan.  
Mrs. Charles N. Fay, Warren, R. I.  
J. Floyd Parker, Alexandria, Va.



## DUNKING STATIONS!

Here's the "all-time" solution to your plant smoking problem—SIPCO "Dunking Stations." Built for hard industrial use—and abuse! Cigarettes, cigars, matches extinguished immediately—no smoldering—no fire hazard!

Unit No. 1—Heavy aluminum canister, attractive sign, upright and heavy weighted base for use on floors, aisles, etc.

Unit No. 2—Same as Unit No. 1, except without upright and base. Easily mounted on walls, columns and posts.

Unit No. 3—(Not illustrated) Canister alone.

Send TODAY for new illustrated folder which gives complete details.

## STANDARD INDUSTRIAL PRODUCTS CO.

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## Heavy-Duty, Molded Rubber SAFETY TREADS

For all types of industrial installations . . . Molded rubber treads in black or marbled colors give lasting SAFETY with quiet cushion and beauty . . . Apply permanently to any type step—wood, metal, concrete, tile with Melastic water-proof bonding cement. Riser and landing coverings available in colors to match. Treads supplied trimmed to fit any step need . . . No cutting or waste.

## LINK MATS — A Type

### For Every Industrial Need.

Seven different types . . . Vinyl rubber links for grease and oil-resistant service and for strong color contrast on floors . . . All-rubber links for color combinations or in black . . . Frictioned-rubber links for special slip resistance at entrances, on ramps, behind counters . . . The MEL-FLEX line of Link Mats provides a type for every need for industrial SAFETY in installations—made to any size or rectangular shape for run-ways about machines, entrances, lobbies, locker rooms, hallways . . . They assure SAFE service and lasting durability for greatest economy.

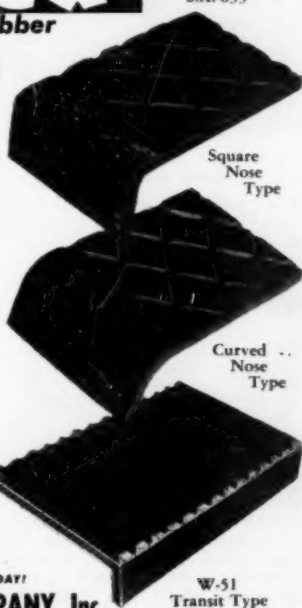
Write for Catalog and Prices TODAY!

## MELFLEX PRODUCTS COMPANY, Inc.

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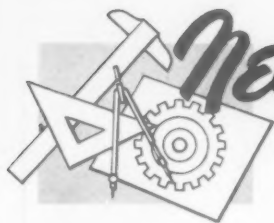
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Laboratories, Inc.  
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Square  
Nose  
Type

Curved  
Nose  
Type

W-51  
Transit Type



# New safety equipment for industry

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

## Shock-Proof Safety Handle

A new vise improvement is announced by the Wilton Tool Manufacturing Co., 925 Wrightwood Ave., Chicago 14, in a shock-proof safety handle which prevents finger-pinching and reduces noise and jarring. This handle will be included on all Wilton machinist vises from 3½ inch jaw width up. The handle is made shockproof by thick, pliable rubber rings mounted up

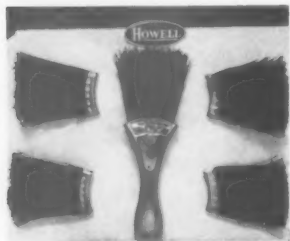


against the handle knobs. The rings are oilproof and greaseproof.

Because of the give to these rubber rings, contact with the fingers is harmless when the handle is accidentally dropped. The shape of the rubber rings is such that it forces the flesh away from the handle instead of wedging it into the spindle-head hole. In use, the machinist may operate without fear of finger-injury. Parts for a precision operation will not be jarred out of alignment, for the rubber rings serve as effective shock absorbers.

## Brush Holder

Howell Device Co., 3877 Maywood Ave., Cleveland 2, Ohio, has developed a Re-Fil Brush Holder into which can be inserted different refill brushes for various types



of clean-up work. This handle is made of die cast aluminum. The brush is Bassine fibre. Over-all length is 8½ inches. A new brush can be inserted in the metal holder or handle easily and quickly.

## Portable Derail

Availability of a portable derail unit for temporary derailing service and safety is announced by The Nolan Co., Bowerston, Ohio. It is recommended for use wherever workers may be endangered by wild cars,



switching cars, or uncontrolled and unsuspected car movements in rail yards, spurs, etc. This derail is particularly adapted to mine use as protection at room necks, entries, etc.

Derailment is accomplished in either direction, on right or left hand rail. No spiking is necessary as a wedge construction securely locks the derails to the rail. Each derail is complete with flag.

## Plastic-Coated Gloves

Hyflex gloves, a new line of plastic-coated gloves which will protect against water, acids, alkaline materials, oils and a variety of other corrosive chemicals, have been placed on the market by Houghton Laboratories, Inc., Olean, N. Y. Made by a new centrifugal process, these are canvas gloves which are coated with a tough, abrasion-resistant vinyl plastic. The new application process makes possible exceptional adhesion to the canvas and freedom from pinholes.

The gloves are flexible over a wide temperature range—from freezing to as high as 200° F. They are flexible enough for use in delicate chemical laboratory work and sturdy enough to stand up in severe production applications.

## Vacuum Cleaner

Breuer Electric Manufacturing Co., 5100 North Ravenswood Ave., Chicago 40, announces their new Tornado Model 92 industrial vacuum cleaner which can quickly become a powerful hand-carried blower-cleaner, a portable hand vacuum cleaner for off-the-floor cleaning, a portable "air-sweeper," or, with all units attached, a compact, efficient universal suction cleaner for plant and offices. The complete motor and fan housing is removable for use in the portable units.

It has 1¼-HP air cooled universal motor which operates at a speed of 13,000 RPM, creating a suction of over 230 cubic feet



per minute, equaling an intake air speed of over 320 MPH. This suction permits easy pickup of water, scrubbing solutions, metal chips, sweeping and scrubbing compound, machining coolant, oil, etc. A large 12-gallon capacity tank and a heavy exterior bag for dust and fine particles make the machine a complete, heavy-duty cleaning aid. Complete unit weighs only 50 lbs.

## Dust Collector

A new, large capacity industrial dust collector which requires only eight feet of floor space, yet is capable of collecting the dust from as many as ten grinding wheels in simultaneous operation, is announced by Agat-Detroit Co., Ann Arbor, Mich. The new collector (Model 3050 Dustkop) has a rated capacity of 3630 cubic feet of air per minute at a static suction of 6 inches measured on an 8 inch inlet pipe. This capacity indicates the following as recommended uses: Six large disc grinders; up to four largest wood-working machines such as jointers, planers, abrasive belts, etc.; six grinding wheels up to 20 inch diameter.

The dirt laden air is drawn into the collector by means of a self-clearing paddle wheel fan driven by a 5 h.p. motor. The first stage cleaner is a cyclone separator of pre-determined operating efficiency; a second stage cleaning is by a heavily compressed fiberglass filter which cleans the air and permits its return to the working space for a consequent saving of heat. Installation requires only the locating of the unit and connecting to electrical power and the piping system. Being self-contained

# New safety equipment for industry

Further information on these new products and equipment may be obtained by writing direct to the manufacturer. It will help in identifying the product to mention this announcement.



the unit is portable and can be moved as changes in production setup are made.

Floor size of the unit is 29 by 50 inches, with over-all height of 132 inches.

## Portable Loading Platform

Atlas Industrial Corp., 849 39th St., Brooklyn 32, N. Y., announces the introduction of a new portable loading platform. This new platform has a capacity of one to three tons, up to 20 ft. range and is operated by one man. It is easily



moved on retractable casters. The standard platform is 4 by 4 ft., but other sizes are available to meet any requirements.

The platform is electrically operated with either floor or platform control, or both. It is of rugged, welded-steel construction.

## Safety Hat

Davis Emergency Equipment Co., Inc., 45 Halleck St., Newark 4, N. J., has developed a new safety hat called Plastiglas Hedgard, which combines style and comfort with strength, high dielectric prop-



erties, shock-absorbing features and design that protects the neck from dripping fluids and the sun. It is reported to be lighter than conventional hats. Comfort and an easy fit are assured by a universal cradle that makes the hat fit every size and shape of head. Coolness results from design that provides for free air circulation in the interior of the hat. Aluminum color also adds to the coolness.

The hat is now made in two models, one with a broad, slanting brim on the

back and sides as well as the front and the other with only a front, visor-like brim. Standard finishes for both models are aluminum and brown.

## Coating for Work Gloves

Mine Safety Appliances Co., Braddock, Thomas and Meade Sts., Pittsburgh 8, Pa., announces a new all-purpose work glove with special coating that sheds moisture and resists chemicals. The vinyl-plastic coating stays flexible in extreme cold, does not become "tacky" at any high temperature to which hands are normally exposed, and is especially effective in combating strong acid concentrations. The gloves will protect against concentrations of all acids, including sulphuric acid and oleum, and all caustics.

The new gloves are tailored for comfort and utility, as well as protection. Seams are straight and there is no excess material in the finger crotches. The gloves are available in fully coated or in ventilated palm-coated styles, with either smooth or rough finish, and with a choice of knit wrist, 2 inch safety cuff or 4½ inch gauntlet cuff. The knit wrist model also is available in women's sizes. Detailed data are included in Bulletin No. CF-30, available from the manufacturers.

## Safety Tongs

Magline, Inc., Pinconning, Mich., announces addition of a new model to their line of lightweight safety tongs. The new design incorporates adjustable handles to



provide greater ease and flexibility for press and shear feeding operations. Simply operated, the new tongs adjust instantly to any desired position. Tension at the points of adjustment is automatically maintained. Constructed of special magnesium alloy, the tongs will be crushed if accidentally caught within the die opening, thus preventing damage to the die.

## Rust Preventive Paint

An improved formula of its Certified Rust Inhibitor No. 425 is announced by United Laboratories, Inc., 16801 Euclid Ave., Cleveland, Ohio. This rust preventive

paint dries in 10 minutes under normal conditions and one coat provides hiding of the old metal surface.

The new formula, known as Rust Inhibitor No. FD-425, will withstand temperatures from minus 100° F. to plus 250° F. and is resistant to salt air and fumes. It may be applied over damp surfaces, interior or exterior, galvanized metal and new or rusted metal surfaces of any kind. The one-coat, fast-drying process leaves a semi-gloss finish and is available in several colors plus aluminum and clear.

## Wire Rope Fitting

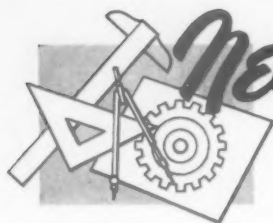
A choker sling fitting of new design has recently been perfected by Electroline Co., 4121 S. La Salle St., Chicago 9, manufacturers of wire rope products. The new sling fitting employs two overlapping and co-acting hooks which are easily applied



to a wire rope to form a loop of any desired size. The rope cannot be freed from the sling until both hooks are disengaged manually, thus preventing accidental release.



Another feature of the design is that the hooks are joined to the fitting portion of the choker sling fitting by a pivot which allows the unit to conform automatically to the size of the load. No matter what the diameter of the load, within capacity limits, the pivoted hooks change their



# New safety equipment for industry

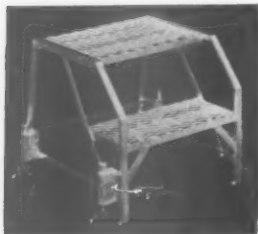
Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

relative positions to that of the fitting and thereby fitting and cable maintain a straight line, when under load, eliminating flexing of the cable where it enters the fitting, thus prolonging the life of the cable.

The new fitting, besides having a rope socket of the Electroline type, can be furnished with a simple locking device which prevents the rope from slipping through the hooks and holds the rope firmly in loop of any desired size.

## Safety Ladders

I. D. Cotterman, 4535 N. Ravenswood Ave., Chicago 40, announces a new line of welded steel safety ladders. The weight of the operator automatically prevents rolling by the use of ball bearing swivel brake casters, yet ladder rolls freely when not in use. It is easy to move and can be



rolled anywhere and is always ready for instant use.

Non-skid steps are made from expanded metal. Illustration shows an 18" 2-step model. The ladder is also available in heights to 72" with 8 steps, including top platform. Taller ladders have hand rails on sides and around top platform at convenient height for grasping. Made regularly in 19½" and 25½" widths.

## Glass Coating

The danger of glass particles from broken light bulbs scattering can be reduced by coating the bulbs with Tecogel, a clear lacquer-type, anti-fragmentation coating. Tecogel, which has been tested successfully in meat packing plants, is applied by hot-dipping. The coating sets in two to three minutes and dries hard in two to three hours. For best results, the coated bulbs should be allowed to dry for four or five hours before being put into service. A bulletin describing performance and application data is available from the manufacturer, Thompson & Co., Oakmont, Pa.

## Arc Welding Helmet

Jackson Products, Warren, Mich., announces a new type of welding helmet. The shell is molded in one piece, under high compression, of laminated fabric, phenolic impregnated. It is claimed that this thermosetting material, by being more



resistant to high heat, and much less moisture absorbent, will hold its shape better than the commonly used vulcanized fibre. It is strong, smooth, easy to clean, and attractive in appearance.

Cover glass is replaced from the outside with no other parts to come loose, filter lens from the inside; no tools are needed. All helmets are checked for light leakage under strong light. Headgear is of smooth plastic, readily adjusted to any head size. A cork-padded sweatband is held by snap buttons. The shell is easily raised and lowered on manually adjustable friction pivots, yet held firmly in any desired position.

## Traffic-Line Marker

Line Marker Division of Universal Yonkers Corp., 136 Alexander St., Yonkers 2, N. Y., announces a new model, the Universal Controlled-Flo traffic-line paint-striper which can lay down dual as well as single lines. It is well suited to line street crossings, industrial plants, recreational areas, bus, taxi and trolley car safety zones and terminals.

Because the machine is gravity fed and requires no power unit it considerably lessens the work of maintenance men. It has no hoses to blow out, no jets to clean, or pressure tank to take care of.

The all-metal, sled-type spreader accommodates striping or zone paint of any standard make. The machine is noiseless in operation and does not throw off a spray

dust. Receiving the paint from the gravity line, a distribution apron feeds it evenly to finger rollers which spread the fluid. The machine can be used with good results on any reasonably smooth surface such as macadam, concrete, asphalt or wood. Offset in operation, it allows the operator a clear view of the line at all times thus eliminating the necessity of straddling the stripe. The controlled flow insures a steady, even application to suit the needs of the operator.

## Load Binders

New load binders featuring the compensating action of a sturdy spring have been announced by Canton Cast Products Co., 2460—13th St., N.E., Canton 5, Ohio. The new binders were originally designed for military use and were accepted and



specified after thorough performance and safety tests.

The introduction of the spring is regarded as an important advance in safer binding of loads for all kinds of commerce and industry, with the "take-up" continuous action feature in the handle being an additional safety factor. Four models now in production begin at 9,000 lb. capacity.

## Noise Snubber

Burgess-Manning Co., Libertyville, Ill., has developed equipment which will reduce air-borne air compressor intake noise. Three "snubber" series have been designed, it is stated, which also will meet pulsation problems.

The silencing equipment has been prepared to apply to any type and size of compressor and to meet all needs of silencing requirements ranging from non-critical industrial locations to highly critical applications such as residential areas, hotels, theaters and hospitals.

Recommendations for the application of these "snubber" series are made by company engineers after considering the make and model of the compressor, bore and stroke, whether double or single acting, number of cylinders, RPM, and a description of silencing requirements.



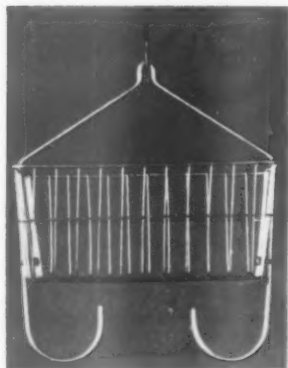
# New safety equipment for industry

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## Lockerbasket

More efficient use of space, more light, better ventilation and economy of installation are features of the Moore Overhead Lockerbasket available from the Moore Co., 422 Professional Bldg., Charleston, W. Va.



This method of overhead storage of personal effects has been designed for use in industry, gymnasiums, shops, recreation centers, wherever people need a safe method of storing clothes, etc. It is sturdy, rust resistant and will not tip. It has over 1200 cubic inches of basket space for storage of shoes, hat, packages, and other articles. Garments are suspended back to back on hooks, thus allowing free circulation of air, and preventing contact with clothes of adjoining baskets. The hooks, as part of the hanger itself, are connected with eye bolts to the basket. The basket slides up and down on the long shanks. Thus, clothes suspended from the hooks will not slip off nor can they be knocked off, since the weight of the basket and its contents hold them securely in place.

## Radiation Meter

A combination radiation survey meter for both plant civil defense protection and the monitoring of foundry areas where industrial radiography is being carried out, is being offered by Tracerlab, Inc., 130 High St., Boston, Mass.

This rugged survey instrument has five scale ranges of 5, 50 and 500 milliroentgens per hour and 5 and 50 roentgens per hour. These scales are arranged in order of increasing sensitivity; have different colors; and are automatically changed when the scale is switched, so that only the

selected scale is visible. The instrument is submersion and shock proof and is designed to operate under severe temperature and humidity conditions. Because of these features they are well adapted for industrial monitoring in foundries and machine shops where ruggedness is a prime requisite.

The SU-10 Radiac is approved by the Federal Civil Defense Administration and has been designed and built to specifications established by the U. S. Signal Corps. Other features include a 4-inch rectangular meter; accuracy of  $\pm 15\%$  of indicated dosage reading anywhere on scale; built-in checking source for determining proper instrument functioning; carrying strap and pushbutton illumination of the meter dial by means of a button incorporated in the handle of the instrument.

## Tractor

A new tractor model has been added to the Truck-Man Line of industrial trucks. Designated the "True-Tor" Model DR, it is capable of hauling cargo trains of up to 13 times its own weight (990 lbs.) on dry, level concrete, according to the manufacturers, Truck-Man Division, The Knickerbocker Co., 626 Liberty St., Jackson, Mich.



The heavy duty air-cooled engine of 5.8 h.p. is said to operate an eight-hour shift on approximately one gallon of gasoline. It has been designed to meet load limit problems on elevators, floors, docks and dock-boards.

The tractor is equipped with heavy duty industrial pneumatic tires. The power turret revolves 360°, giving it extreme maneuverability.

## Hair Protection

A hat of white taffeta, particularly adapted to women in the food, drug and

process industries, has been introduced by The Boyer-Campbell Co., 6540 St. Antoine St., Detroit 2, Mich. This line of hats for "Mi-Lady" in industry, known to the trade as "Ray-ve," is made in either a washable white or blue taffeta, cool and feather-



weight. The fundamental design and construction is such that there is no inclination to tuft the hair in front, hazardous practice with a peak-cap which is ordinarily worn on the back of the head. The snood of the "Ray-ve" hat is adjustable to take care of any amount of hair, and once adjusted to the individual, requires no further attention.

## Face Shield

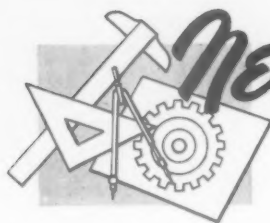
A new type of face shield known as "The Halo" has been developed by the United States Safety Service Co., 1215 McGee St., Kansas City 6, Mo. Attractive appearance, light-weight and comfort are claimed by the manufacturer through the



use of Cellulose-Acetate-Buytrate materials.

A new feature is an all-green plastic spark protector, which affords wide-angle vision, and still eliminates glare from overhead lighting. Another development is a patented visor lock which locks the visor in the "up position" or the "working position."

The face shield is available in three



# New safety equipment for industry

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styles of headgear with clear or green visors, and a special acid-resistant visor for use around acid and chemicals. It weighs less than six ounces.

## Industrial Cleaning Machine

Zenith Mfg. & Chemical Corp., 52 Beckman St., New York 38, announces a new type of cleaning machine for industrial use. Designed specifically for cleaning every kind of instrument with small or large delicate parts, the final model "Instro-Met" is especially recommended for cleaning aviation, time clock, meter, radio and television, typewriter, bearings and screw ma-



chine parts, as well as all electrical and mechanical machine parts requiring precision cleaning.

Among the new improvements in this cleaner are: three clear-view windows on motor support for instant checking while machine is in operation; spun aluminum tanks and covers instead of hazardous glass. All are 10 inches high and have 10 inch diameters—4 gallon capacity. Heavy cast aluminum basket with  $3\frac{1}{2}$  per cent more capacity—7 $\frac{1}{2}$  inside diameter;  $\frac{3}{4}$  inches deep. Basket also has three monel mesh removable compartments for cleaning a variety of different parts simultaneously. Simple snap-on operation of basket to impeller shaft eliminates hazards of accidental loosening. Inner steel tube of center supporting column is splined for automatic centering over tanks and dryer. Basket lowers only when in proper position. "Finger-tip" control enables female operator to work the machine without fatigue. Over-all size—23 $\frac{1}{4}$  inches x 26 $\frac{1}{4}$  inches x 26 inches high.

## Face Shield

A face shield with sufficient clearance to be worn over glasses with modernistic frames and industrial goggles has been designed and manufactured by The Boyer-Campbell Co., 6540 St. Antoine St., Detroit 2, Mich., and will be identified as Model No. 301. The shield is glove-buttoned to a form-fitting head gear which is readily



adjusted to any shape or head size. This greater clearance for modernistic glasses and industrial goggles also affords better ventilation. With three types of shields interchangeable on one head gear the shield provides standardization that permits substantial reduction of inventory on this type of safety equipment. These types are plastic shield for general utility; fibre front with glass holder for gas welding; screen window for scaling, heat, cyaniding, etc.

## Portable Extinguisher

A new, pressure-operated, dry chemical portable fire extinguisher has been announced by Walter Kidde & Co., Inc., 1020 Main St., Belleville, N. J. The design of the extinguisher permits it to be serviced following discharge by simply pouring five



pounds of dry chemical into the powder chamber and, with the aid of a gas station

or factory air line, charging the unit with 150 pounds of compressed air.

The new unit has the same diffusion discharge as the company's twenty and thirty pound models. The nozzle discharges a cloud-like pattern which is effective for extinguishing Class B (flammable liquid) and Class C (electrical) fires. With a range of five to seven feet, the cloud pattern also eliminates the possibility of splashing burning substances as a result of too forceful a discharge stream.

The extinguisher features trigger-type finger control, and its wall bracket has a quick-release type latch. Built into the handle is a gauge which shows the exact pressure carried by the extinguisher. Should the gauge fall below 150, additional pressure can be added to bring it up to the designed operating pressure.

The portable weighs ten pounds fully loaded, stands 15 inches high, and is 4 $\frac{1}{2}$  inches in diameter.

## Bulletin Boards

Metal bulletin boards are again available, according to an announcement by A. C. Davenport & Son, Inc., 311 N. Desplaines St., Chicago 6. Manufacture of these boards was temporarily halted. These



heavy gauge metal boards have cork backs, and may be had for inside or outside use. The illustration shows one of their popular designs—a 48" x 30" two-tone green cork back metal bulletin board. It has two set-in glass doors, lock and key. Other colors may be had to order.

## Non-Skid Grating

The Globe Co., 4000 S. Princeton Ave., Chicago, announces the production of its new Grip-Strut grating for use wherever a non-skid grating surface is required. The descriptive name is derived from the nature of the product which presents an anti-skid surface on the edges of a series of formed struts. The grating appears as a diamond shaped pattern in which the percentage of open area is in excess of 75 per cent of the total reticulated surface. The struts or vertical members are joined by integral

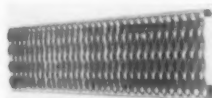
# New safety equipment for industry

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saddles to create strong lateral struts.

The material used for the manufacture is sheet steel or aluminum of gauges from 12 to 16. The process of manufacture is such that there is neither gain or loss in

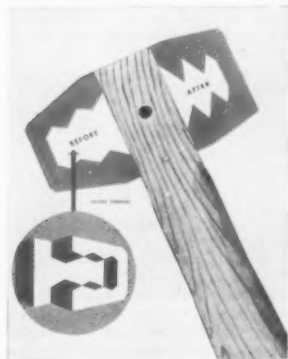


the original measurements of the sheet material nor is any material punched out. The reticulating operation is not an expanding procedure but more of a slitting and folding process. Metal for forming into longitudinal channels, step risers, step nosing or mouldings is integral with the grated surface, eliminating the need of welding in many applications.

Strength coupled with light weight and skid resistance adapt the grating to a variety of applications, such as railroad running boards, cat-walks, work platforms, steps, etc. Its structure makes possible cleaning with a brush or broom.

## Safety Hammer

A new type of construction within the hammer head has just been announced by the Cushman Corp., Larchmont, N. Y. Using a new principle, "controlled compression," the "Flex-Flo" construction consists of a malleable metal hammer having hollow chambers, the inner walls of which are corrugated. Under continuous heavy pounding, the opposing angles of these cor-



rugations slowly approximate each other at a predetermined rate, thus retarding the compression of the malleable hammer head, and preventing mushrooming. The hammer

is made of a special analytically controlled non-ferrous copper-base alloy. It doesn't spark, chip or flake and has a high degree of tensility. Since no metal is lost, the hammer retains its original balance and weight.

The new hammer is available in six convenient weights and sizes:  $\frac{3}{4}$  lbs.,  $1\frac{1}{2}$  lbs.,  $2\frac{1}{4}$  lbs., 3 lbs.,  $4\frac{1}{2}$  lbs. and 6 lbs.

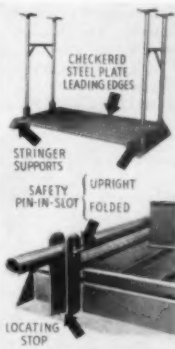
## Pallet Stacker

The "Multi-Stak" pallet stacker unit is now available with several improvements in design and construction, according to the Elizabeth Iron Works, Inc., Elizabeth, N. J., manufacturers of materials-handling equipment. The "Multi-Stak," an all-steel pallet with self-contained collapsible stacking attachment, is used for safe tying of crushable, irregular, odd-shaped or mixed merchandise.

One of the improvements is a self-contained locking device for vertical rigidity of the standards. A safety pin-in-slot arrangement permits the standards to be set up quickly by one person. Ends of the standards nest over raised locating stops on the stringers, to assure positive locking in the upright position. Added rigidity of the stringers is brought about through the addition of corner supports. These are welded to the horizontal and vertical ends of the stringers. Another innovation is the non-slip, checkered steel plate leading edges.

The stacker is manufactured in several sizes for bulk and height, and has a unit capacity of 4,000 lbs., with a stacked capacity of 20,000 lbs. "Multi-Staks" can be safely tied as high as the fork lift truck or ceiling will permit.

When in use, bearing safety plates at tops of standards in set-up position secure the units, placed one above the other. No weight ever rests on the merchandise itself. When not in use, the supporting standards fold across the top of the pallet for compact storage in a minimum amount of space. The unit can also be used for temporary shelving purposes.



## Hand Cleaner

A mineral oil base hand cleaner compounded with a synthetic detergent so it washes off with water is announced by Cresset Chemical Co., 202 W. Main St., Weston, Ohio. The product, Sol-Zol, has quick solvent action and penetrates into deep pores leaving a comfortable feeling.

The manufacturer is particularly interested in working with safety directors who have chapping and skin cracking problems in their plants. The manufacturer claims they have separated the severe chapping and cracking problems from the allergy problems, by clearing up chapping in innumerable cases.

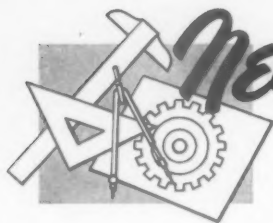
## Portable Vacuum

A new model heavy duty portable vacuum made with a 55-gallon tank which holds 5 bushels of dry dirt or 40 gallons of recovered liquid is announced by Hild Floor Machine Co., 740 W. Washington Blvd., Chicago 6.

For easy handling, the entire unit is mounted on a heavy steel dolly fitted with a hinged handle and three ball-bearing



casters. A two-inch, quick-opening gate valve permits the liquid contents of the tank to be easily emptied into a drain or gutter. The 20-foot vacuum hose is made throughout of oil-resistant synthetic rubber, wire reinforced. Oil-resistant neoprene rubber is also used for caster tires. Numerous attachments equip the vacuum to do a wide variety of jobs. When used to take



# New safety equipment for industry

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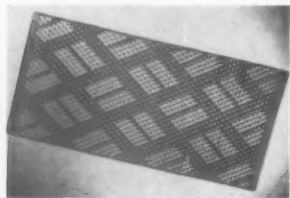
up dirty scrubbing solutions, it leaves floors clean, dry and slip-safe. Flooded areas are quickly dried with this unit. It is used to recover coolant and to clean coolant sump tanks. There are other special attachments to clean stock bins, overhead pipes and beams, walls, ceilings, machine tools, castings, etc.

The machine is always ready to pick up either liquid or dry dirt without adjustment or change of parts. The vacuum employs a "by-pass" motor which does not depend on the vacuum air stream for cooling. The air stream from the vacuum does not pass through the motor housing. Thus a motor cannot be damaged by dust or moisture picked up by the vacuum. A separate independent cooling fan keeps the motor running cool.

## Link Matting

American Mat Corp., 1724 Adams St., Toledo 2, Ohio, announces a new non-absorbent, non-porous and grease-proof ever-tred vinyl-plastic link matting.

The slightly corrugated surface on one side effects a safe, slip-resistant walking surface. The deeply corrugated surface on the reverse side provides a good dirt remover. The links are woven on rust-resisting steel wires and also on flexible,



vinyl tubing framework for use where subjected to strong acids. The links are made in five permanently brilliant, fade-proof colors—green, red, brown, black and white. These colors may be used in any combination, any pattern. Color lanes in a black mat provide an excellent traffic director. This matting comes in any length up to 6 feet wide,  $\frac{3}{8}$  inch thick.

## Workman's Vest

American Pad and Textile Co., Greenfield, Ohio, is marketing the No. 6 workman's vest made to the specifications of the Ohio River Division, Corps of Engineers. The vest is Indian Orange in color for maximum daylight visibility plus Scotchlite strips properly placed for added visibility under a spotlight at night. Adjustable waist and shoulder straps provide perfect

fit. Webbing used in adjustment has a tensile strength of over 350 lbs. All important points of stress are properly reinforced. Two harness snaps and deering arrangement for easy, snug and positive front closure.

Filling is of pure Java kapok encased in vinyl plastic material, electronically sealed to protect flotation material. These vests provide freedom of movement in almost any position and are ideal as a life jacket to be worn by men who work over or around water. They come packaged 12 to a shipping carton.

## Fork Truck

Lewis-Shepard Co., Watertown, Mass., is announcing the development of a new electric fork truck (1500 lbs. capacity) specifically designed for docks, warehouses and terminals. The SpaceMaster "59" model was developed after consultation with motor freight companies and actual freight dock testing.

Tests proved these features: Strength for

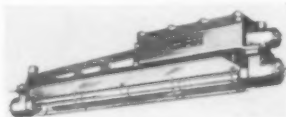


rough duty; 59 inch turning radius for maneuverability in narrow aisles; extra pep in lifting (50 F.P.M. loaded) and extra "go" in hauling (6 M.P.H.); no grease points and no under truck adjustments for lower maintenance costs. In addition, there is the safety and convenience of Stand-Up drive.

## Explosion Proof Germicidal Lamp Fixture

Crouse-Hinds type EVF explosion-proof germicidal lamp fixture is designed to accommodate General Electric or Westinghouse single-pin G36T6 Slimline germicidal lamps. These lamps produce ultraviolet energy at a wave length of 2537 Angstroms, which has proven more effective in killing airborne bacteria, viruses, yeasts, molds, and fungi. The rated life of the lamp is 6,000 hours. The life average of ultra-

violet radiation in watts is 7.79, and the life average of ultra-violet intensity in microwatts per square centimeter at one meter is 68.4. While the lamp is rated at 32 watts, there is a ballast loss of 16 watts,



resulting in a total of 48 watts input for the fixture.

The fixture consists of a tube of explosion-resisting Vycor glass which houses the lamp and which is sealed at each end into aluminum end-castings with threaded covers for access and relamping. The special Vycor glass was selected for its extremely high ultra-violet transmission. A rigid structure consisting of the aluminum ballast housing and extension piece support the two tube end-castings. Each end of the fixture is supplied with a  $\frac{1}{2}$  inch conduit hub for mounting. Several flexible and rigid attachments are available to conveniently mount the fixture in any position. The entire fixture is designed and constructed in strict accordance with Underwriters' Laboratories, Inc. requirements for equipment for Classes I and II for hazardous locations.

A reflector can be supplied to protect personnel from direct ultra-violet radiation, and a lamp tube guard to prevent tube breakage. The fixture will find ready application in the manufacture of drugs and chemicals where explosive or flammable solvents are used in the processes and where sterility must be maintained, as well as in food processing.

Further information is available from Crouse-Hinds Co., Syracuse, N. Y.

## Radio Relay Systems

Motorola, 4545 W. Augusta Blvd., Chicago 51, has announced the introduction of a new line of multiplexing equipment for its industrial microwave radio relay systems which provides facilities for up to 24 voice channels.

A cross-country communications system utilizing this advanced design multiplex equipment is capable of handling either 24 normal voice circuits, more than 400 teletype or teletyping operations, nearly 1000 remote supervisory control functions or telegraph circuits, or any combination of these facilities. Introduction of this new multiplex equipment permits the users of previously supplied Motorola Microwave 10- or 12-channel systems to expand them

# New safety equipment for industry

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up to 24 channels when desired. The new equipment, featuring double frequency modulation sub-carrier type multiplexing, incorporates the same principles as 10- and 12-channel systems previously supplied and operates in the 6575-6875 megacycle frequency band.

This equipment is available in two basic designs, remote type installation for use where the customer already has housing facilities for the radio equipment and power supplies, and "micropackage" for complete package installation. Repeater stations are designed so that radio equipment is installed on the ground where it is readily accessible for checking and servicing.

For remote-type installations the radio frequency equipment is installed in outdoor weatherproof housings with paraboloid reflector-antennas mounted on top. Other necessary control equipment is installed in the customer's building.

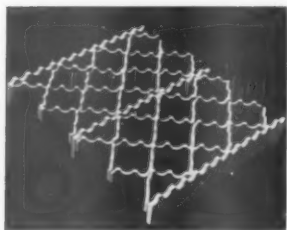
Micropackage installations are completely enclosed in a standard concrete block house with the reflector-antennas mounted on the roof directly above the radio frequency equipment inside.

The new equipment is well-suited for pipeline, power company, railroad, land transportation, forestry and similar cross-country applications that require a large number of communications channels.

## Grating

A new, patented  $\frac{1}{8}$ " stock grating which reduces walking hazards due to oil, grease or water has been developed by the Bustin Firm-Grip Grating Corp., 110 East 130th St., New York 37.

The grating's serrated edges give sure

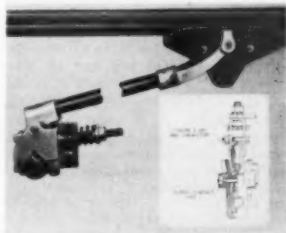


footing but are still comfortable to walk and stand on. Reported laboratory tests show the grating slip-proof even after being submerged in chassis grease and tilted to a 15 degree angle. The grating is suited for installations where excessive oil, grease, water or icy conditions make walking haz-

ardous; and where drainage and sanitation are necessary.

## Trolley System

A new trolley system, designed to insulate bare figure-8-bar conductors for maximum safety is now being marketed by the Benbow Manufacturing Co., 1285 Rollins Road, Burlingame, Calif. The new system, trade marked "Insul-8-Bar," can be applied



to existing figure-8-bar conductors without dismantling, or it can be installed as a completely new system. Bare 8-bar conductors are normally used to supply power to bridge cranes, monorail hoists, and conveyors.

Basically, the system consists of two units: (1) a sheath of insulation material, readily cut to any desired length, that snaps over the 8-bar conductor; (2) a sliding shoe collector, held against the insulated 8-bar conductor by spring action (adjustable from 2 to 10 pounds pressure). The sliding shoe makes contact with the conductor through a continuous, narrow opening at the bottom of the insulation sheath. The system can be installed quickly and easily. It is adapted to curves, switches, and crossovers. The present system, rated to 60 amperes, is designed specifically for standard, 1 inch figure-8-bar conductors. Larger and smaller amperage versions will be available in the near future.

One of the initial installations of this new system is nearing completion at the Douglas Aircraft Co. plant, El Segundo, Calif.

## Ferrule Contracting Machine

Schrader air-operated ferrule contracting machine No. 1765 makes it possible to speed production where quantities of uniform, fitted hose lengths are required. The adaptation of air cylinder power to the standard hand-operated No. 5111 die type contracting machine has proved so successful in actual production tests that the

assembly is now made available in a complete set.

Interchangeable dies enable the machine to be set up quickly for various size ferrules. Fast, effortless operation with neat air-tight application of the ferrule is a feature of this unit. Foot pedal operation permits the use of both hands to feed and

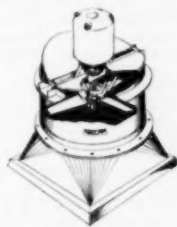


remove the work, reducing fatigue and speeding production. Easily hooked up to any shop air line.

Further information is available from A. Schrader's Son, 470 Vanderbilt Ave., Brooklyn 17, N. Y.

## Roof Ventilator

Because of minimum restriction to impede air flow, this Posit-Aire roof type ventilator moves maximum volume of air in range of 5,000 to 45,000 cubic feet per minute, depending upon size. The instant the fan is started, mechanically-actuated louvers open automatically. Power to open

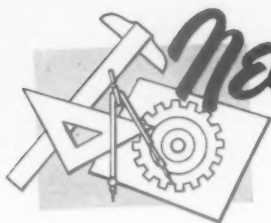


louvers is provided by the fan-drive motor through simple lever-clutch mechanism. When fan is stopped, louvers close positively and lock in closed position until unit is turned on again.

This automatic louver design prevents entrance of rain or snow, eliminates drafts or "stack effect" when unit is not operating and prevents back-draft or entrance of outside air. It offers reduction in fire hazard by eliminating draft through roof in event of a fire. Because louvers lock closed, burglar and sabotage protection is afforded.

Exhaust air is discharged upward to pro-





# New safety equipment for industry

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tect roof from damage by fumes or moisture removed from plant. Engineered for field erection, unit can be supplied without motor or base for economy in shipping, storage and handling. Standard sizes range from 24 to 48 inches. Special sizes, top or bottom motor mountings, or belt driven units for use in corrosive atmospheres can be furnished. For full information, write Tripar Products, Inc., Dept. 146, 14641 W. Eleven Mile Road, Royal Oak, Mich.

## News Items

Frederick P. Wurttenberger, formerly vice-president in charge of sales, has been named president of the Elliott Service Co., Mount Vernon, N. Y. Mr. Wurttenberger, a resident of Pelham, N. Y., joined the Elliott Service Co., publishers of foremanship training and safety-display aids, in 1945. He was named vice-president in charge of sales in 1949 and became general manager in April, 1951, upon the death of the company's former president, George J. Kadel. Mrs. Alma Kadel, wife of the deceased former president, was elected vice-president.

The Asphalt Tile Institute, 101 Park Ave., New York City, has just released a recommended Fire Resistance Test for Asphalt Tile. This test was perfected by the Technical Research Committee of the Institute and will be of special interest to those in areas or locations that must test materials for flash fires, etc. Single copies of the test may be obtained without charge by writing to the Institute office.

Effective December 31 last year the assets and business of Railway and Industrial Engineering Co., subject to all its obligations and liabilities, were acquired by its parent company, I-T-E Circuit Breaker Co., Philadelphia, Pa. Henceforth, it will be known as the R&IE Division of I-T-E Circuit Breaker Co., and will continue all of its present operations in Greensburg, Pa.

Operation of the R&IE Equipment Division will in no way affect the present relations between the company, its suppliers, or its employees. K. S. Nevin has been elected a vice president of the I-T-E Circuit Breaker Co., and manager of the R&IE Equipment Division. W. M. McCauley and G. L. Carlisle have respectively been elected vice president and commercial vice president of I-T-E Circuit Breaker Co.

The H. M. Sawyer & Son Co., Cambridge, Mass., manufacturers of rainwear and industrial protective clothing, announce the appointment of A. K. M. Horton as sales manager of both their Industrial and Rainwear Divisions. Mr. Horton was formerly in charge of sales for the Industrial Division. Robert Husbands has been appointed assistant to Mr. Horton. Both appointments were effective January 1 this year.

Jesse W. Rosenquist has been appointed territorial representative in Maine, New Hampshire, Vermont and part of Massachusetts by the Mine Safety Appliances Co. His territory includes the Massachusetts counties of Franklin, Hampden, Hampshire and Worcester. Mr. Rosenquist joined the sales engineering staff of MSA following his graduation from Loyola University, Los Angeles.

Ampco Metal, Inc., Milwaukee, has announced the appointment of Ben R. Hecker as field engineer in the Detroit office where he will handle the sale of resistance welding alloys as well as other Ampco products. Prior to his appointment Mr. Hecker served as a resistance welding engineer in the Milwaukee office since 1949.

The company also announces the appointment of Nelson S. Cobleigh as district manager of the company's Philadelphia sales division. Mr. Cobleigh was formerly a field engineer in the Wisconsin office. He was later transferred to the Detroit District office where he served as field engineer for 2½ years prior to his recent appointment.

Frank X. Mangan has been named national sales manager for the Wilson-Albrecht Co., Inc., manufacturers of Waco steel scaffolding equipment, located in Minneapolis, Minn. Mr. Mangan joined the company in 1946 as a sales representative. In 1949 he was promoted to assistant sales manager. In his new capacity he will co-ordinate the sales activities of the company's new distributors, supervise general sales programs and assist in the development of new distributor outlets.



Mathias Klein & Sons, Chicago, manufacturers of electricians' tools and equipment, announces the addition of new representatives and realignment of territories. Effective immediately, the following changes will be made:

Arnold L. Moore, headquarters in Atlanta, Ga., will represent the company in the South and Southwest; Charles F. Castino, Chicago, will represent the company in the Chicago area; W. J. McAmis, Chicago, will serve in the North Central States and George W. Kidd, St. Louis, will represent Mathias Klein in the Central States.

Reorganization of the Benbow Mfg. Co., Burlingame, Calif., manufacturers of insulated trolley busways, has been announced recently by President Tiley L. Ford. A complete overhauling of both products and methods distribution was begun in 1950, when new management was installed. Former sales outlets have been replaced with a coast-to-coast system of engineering organizations that handle both sales and service.

Construction of a new Engineering and Development Building to be completed within eight months has been announced by Walter Kidde & Co., Inc., Belleville, N. J. The building will have a floor area of 18,000 square feet and will double the space presently occupied by Kidde's Engineering and Development Department. Facilities in the new building will include model shops, development and testing laboratories and general engineering office space.

Because of increased business in the Detroit and Milwaukee areas, the fire extinguisher division of the Ansul Chemical Co., Marinette, Wis., announces the transfer of its district offices in those cities to new and larger quarters. The new Detroit office will be located at 17184 Wyoming, Detroit 21, and the new Milwaukee quarters at 2755 N. Third St., Milwaukee 12.

C. F. Hooper, Detroit district manager, said the new location will provide improved service, since there will be adequate parking space and warehouse facilities for immediate delivery of recharging supplies, parts, and most models of the company's line of dry chemical fire extinguishers.

R. F. Deerwester, Milwaukee district manager, said his staff's new quarters will provide larger and more complete stocks, parts, accessories and recharging supplies. Parking space also will be plentiful.

# Trade publications

## in the safety field

These trade publications will help you to keep up-to-the-minute on new products and developments in industrial health and safety equipment. They are free and will be sent by manufacturers without obligation to readers of NATIONAL SAFETY NEWS who are responsible for this work. Send in the coupon below checked for the publications you desire. Please make your requests promptly.



1. "Studies in Centralized Lubrication": 1952 Bulletin describes representative installations of central lubrication systems, suitable for all types of industrial machines, which deliver measured charges of lubricant to all bearings. The Farval Corp.

2. "Respiration Protection": Booklet introduces a line of twin cartridge respirators, stock and special respirators, and accessories. A chart lists 231 contaminants with recommended respirators and cartridge for each type hazard. American Optical Co.

3. "The Care and Maintenance of Industrial Trucks": 16-page bulletin gives details on servicing electric and gas trucks, with illustrations depicting each step of weekly and annual maintenance checks. Baker-Raulang Co.

4. "Your Floors and How to Maintain Them": 40-page booklet discusses installation, maintenance and repair of tile, terrazzo and wood flooring, and care of carpets and linoleum. Complete line of floor maintenance products included. Multi-Clean Products, Inc.

5. "Herc-Alloy Sling Chain": Data Book 3 describes a line of heat treated steel alloy sling chain assemblies. Specifications include load limits, dimensions and structural data. Columbus McKinnon Chain Corp.

6. "Accident Prevention Signs": First of a series, this folder has full-color charts containing 155 "danger" signs. ASA specifications are given for the aid of those ordering danger, caution, directional or safety first signs. Stonehouse Signs, Inc.

7. "Cloth-Bag Dust Collector": Pangborn Bulletin 914 announces a new collector for carbon, wood, metal oxide and similar dusts, and has illustrations to show installation, operation and mounting. Specifications included. Pangborn Corp.

8. "Ampco Safety Tools": Bulletin ST-5 describes safety tools representative of the Ampco line. Materials of construction, usage and specifications on chisels, scrapers, screwdrivers, hammers, shovels, pliers, wrenches, etc. Ampco Metal, Inc.

9. "Flintkote Industrial Products Digest": 24-page booklet describes asphalt emulsions and cutbacks, rubber adhesives, resin adhesives, coatings and sealers. Insulating compounds, sound deadener, fibreboards and numerous other items are discussed. Flintkote Co.

10. "Roebbing Sling Data Book": Catalog describing a line of slings made from "blue center" steel wire features flatweave slings designed to be kink-resistant and flexible. John A. Roebbing's Sons Co.

11. Industrial Cleansers and Soaps: Literature features a cleanser-sanitizer which disinfects as it cleans and eliminates rinsing. Also featured, skin cleanser in three grades: fine and extra fine granulated, and heavy duty. Sugar Beet Products Co.

12. "Abrasive Surface Castings": Folder on non-slip surfaces cast in Feralum, Alu-malun, Bronzalun or Nicalun, and available in hatched, plain or fluted designs. Specifications and typical installation layouts given. American Abrasive Metals Co.

13. Safety and Efficiency Signs for the Factory: Catalog 248 lists danger, notice, safety and information signs with stock or special wording. Signs available of steel or syntex composition, and coated with synthetic baking enamel. Prairie State Products Co.

14. "Chemkios": Illustrated folder presents work clothes: shirts, trousers and coveralls, constructed of corrosive-resisting fabric, thread and buttons. A sample of the fabric, which will not support combustion, is included. Mine Safety Appliances Co.

15. "Safety Marking Tools": Bulletin features devices designed for unusual marking applications and describes stock letter and figure stamps, holders, branders, etc., made from wear-resistant steel. M. E. Cunningham Co.

16. "Penmetal Expanded Metals": Booklet on standard or flattened expanded metals gives suggested usage, dimensions and other specifications. Available in stainless steel, Monel, Inconel, aluminum, copper and other metals. Steel Sales Corp.

17. Heavy-Duty Cleaning Equipment: Information on a line of portable industrial cleaning units; hand cleaners and blowers, boiler cleaners, wet or dry cleaners and accessories. Some cleaner models can be converted into blowers. General Electric Co.

18. Washroom and Cafeteria Equipment: Literature on electric hand, hair and industrial dryers, features dryers for boots, goggles and general industrial use. Also, information and specifications on sectional tables for cafeteria, workbench or recreation. Chicago Hardware Foundry Co.

19. "Wire Rope Clamp and Thimble": Illustrated brochure with description and dimensions of steel cast clamps and thimbles designed to utilize load pressure while eliminating shear on bolts. New-man Mfg. Co.

20. "Traffic Never Stops": Folder announces "Perma-Mix," for floor resurfacing and patching, which can be applied to wet or dry surfaces in any weather, and which eliminates delays due to mixing and setting. Berry Asphalt Co.

21. "Thresholds": Booklet offers specifications, sectional drawings and layouts for a line of abrasive cast, extruded, and rolled steel thresholds with surface designs in fluted, corrugated and other types. Wooster Products, Inc.

## NATIONAL SAFETY NEWS

425 N. MICHIGAN AVE., CHICAGO 11, ILLINOIS

MAY, 1952

Please have sent to me the publications checked:

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COMPANY \_\_\_\_\_

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CITY \_\_\_\_\_ STATE \_\_\_\_\_

## STOP Perspiration Hazards!

Hot weather means perspiration, discomfort, often the slowing down of work and loss of valuable time.

Every summer an increased number of employees largely overcome this perspiration hazard by providing employees with low-cost, felt or leather sweatbands, which absorb perspiration before it has an opportunity to create discomfort by running into the eyes. Here are three styles of sweatbands especially designed for hot weather.

No. 440—"Absorbant" made of the finest obtainable absorbent white felt, treated to absorb a great deal more perspiration than ordinary felt. When saturated with perspiration, it can easily be rinsed in water, wrung out, and it is again ready for use. The felt fits on the forehead and is kept in place by a flat elastic band. Low cost permits liberal use.

No. 442—Helmet sweatband made of genuine sweatband leather, padded with felt. Can quickly be attached to any helmet or Face Shield headgear having a 1 1/2" band. Packed in individual envelope. You yourself would not wear a hat without a sweatband. Why ask your workmen to wear helmets or face shields without a sweatband—especially during the hot weather?

No. 443—Helmet sweatband. Fits 7 1/2" headband. Otherwise the same as No. 442. Order "Absorbant" felt sweatbands for general use, and Helmet sweatbands for welding helmets and face shields having a headgear. Be sure to specify the width of the band when ordering helmet sweatbands.

Order from your dealer or write us direct.

# sellstrom

**MANUFACTURING COMPANY**

Sellstrom Safeguards Your Eyes and Face  
622 North Aberdeen Street, Chicago 22, Ill.

## Guide Pin Covers



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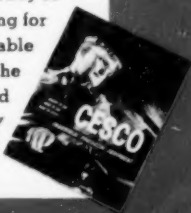


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